

***EVALUATION
OF THE WESTERN CAPE PROVINCE
SCREENING PROGRAMME
FOR DEVELOPMENTAL DISABILITIES
IN PRE-SCHOOL CHILDREN***

FULL RESEARCH REPORT

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**Children's Institute,
University of Cape Town**



**Departement van Gesondheid
Department of Health
iSebe lezeMpilo**

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TERMS OF REFERENCE

This evaluation study was commissioned by the Maternal, Child and Women's Health (MCWH) Sub-directorate of the Provincial Administration of the Western Cape Department of Health and undertaken by the Children's Institute, University of Cape Town. The evaluation took place from August 2002 to March 2003. The study was supported by a grant from the Health Systems Trust.

Anticipated outputs of the study include:

1. Full technical report, including brief introduction and literature review, programme history, results on the current delivery of the programme, discussion of key issues and recommendations.
2. Executive summary report highlighting the above.
3. Formal oral presentations to relevant stakeholders.
4. Relevant publications and conference presentations.

In terms of the agreements between the MCWH Sub-directorate and the Children's Institute, the MCWH Sub-directorate will retain ownership of all outputs from this research study. Appropriate academic presentations and publications may be made by the Children's Institute with prior approval from the MCWH Sub-directorate. Full acknowledgement of the MCWH Sub-directorate must be made in all written and verbal outputs, while the Children's Institute will be reflected as the primary researcher of this study. All other contributors will be appropriately acknowledged.

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To the participants in this evaluation...we hope that this study is a testimony to your strong commitment to provide quality health care to all children in the Western Cape.

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Appendices (including Developmental Screening Programme components and evaluation tools) can be requested from the Children’s Institute, University of Cape Town.

LIST OF ABBREVIATIONS

CHC	Community Health Centre
HRD	Human Resource Development
IMCI	Integrated Management of Childhood Illnesses
MCWH	Maternal, Child and Women's Health
NGO	Non-Governmental Organisation
PAWC	Provincial Administration of the Western Cape
PHC	Primary Health Care
PMTCT	Prevention of Mother-to-Child Transmission
PSNP	Primary School Nutrition Programme
UNICEF	United Nations Children’s Fund
WHO	World Health Organisation

EXECUTIVE SUMMARY

In December 1999, the Developmental Screening Programme was adopted as formal policy within the Western Cape Province. Since then, health workers throughout the province have delivered developmental screening and much interest has been voiced in the development for a further tool for the 2 – 5 year age group. Before initiating this process and before responding to other provinces' requests for access to the Western Cape's Developmental Screening Programme, the Provincial Reference Group decided to evaluate the status of the delivery of the existing tools. In 2001, the Children's Institute, University of Cape Town, was commissioned by the Maternal, Child and Women's Health (MCWH) Sub-directorate to evaluate the implementation of the Developmental Screening Programme.

The objectives of this project were:

1. To document the background to as well as the development and implementation of the Developmental Screening Programme.
2. To describe the current delivery of the programme.
3. To determine barriers and success factors within the implementation process.
4. To make recommendations to the Western Cape Province Department of Health regarding the Developmental Screening Programme.

To achieve these objectives, a combination of quantitative and qualitative data was gathered in stages from all levels of the health system (provincial, regional and district levels) using a number of methods. Apart from documentary and literature reviews, information was gathered via structured interviews with key health managers at a provincial and regional level, a rapid facility survey and facility-based assessments. Data collection at health facilities included structured interviews with nurse managers to obtain a profile of the facility, clinical observations of developmental screening, focus groups with health workers, exit interviews with caregivers, and record reviews. Information gathered from interviews and focus groups was analysed thematically, while rapid facility survey results were analysed quantitatively using EpiInfo.

The main findings that emerged from this study included:

- Overall awareness (100%) of the Developmental Screening Programme.

- Developmental screening and the Developmental Screening Programme were considered to be valuable.
- The successful development of the programme and the key role of the Provincial Reference Group.
- Challenges in the delivery of the programme:
 - Almost a quarter of facilities were not delivering any developmental screening.
 - Only one of nine facilities visited were conducting developmental screening according to protocol.
 - The type (pilot vs. non-pilot sites, community health centres vs. primary health care clinics) and location of facility did not affect the delivery of the programme.
- Issues specific to the programme:
 - Only half of the staff delivering developmental screening had received formal training, much of which was provided initially by the Provincial Training Task Team.
 - Results of developmental screening were not always recorded according to protocol – most often not recorded on the Road-to-Health Card.
 - Referrals were often not according to protocol e.g. 30% of children were still referred directly to tertiary level. Standard referral forms were often not used.
 - Few children have been identified with developmental disability and accessible intervention remained a problem.
 - Monitoring of the programme was found to be problematic, including the routine monthly report data for developmental screening, which was found to lack value and meaning.
- The impact of the health system on the Developmental Screening Programme in the following areas:
 - Transformation/restructuring of the health services
 - Organisation of service delivery at health care facilities
 - Staff and staff capacity
 - Training
 - Referral system
 - Intervention/response to developmental screening
 - Monitoring and the role of health information

In view of the Western Cape Department of Health's new Healthcare 2010 plan, recommendations are made that should be considered if the strategy and its component health programmes are to be effective. A number of programme-specific recommendations are also made, although it is emphasised that these are inextricably linked to systemic changes and will have little or no effect on the delivery of the Developmental Screening Programme without improvements to the broader health system.

1. BRIEF INTRODUCTION AND OVERVIEW OF THE LITERATURE

1.1. Introduction

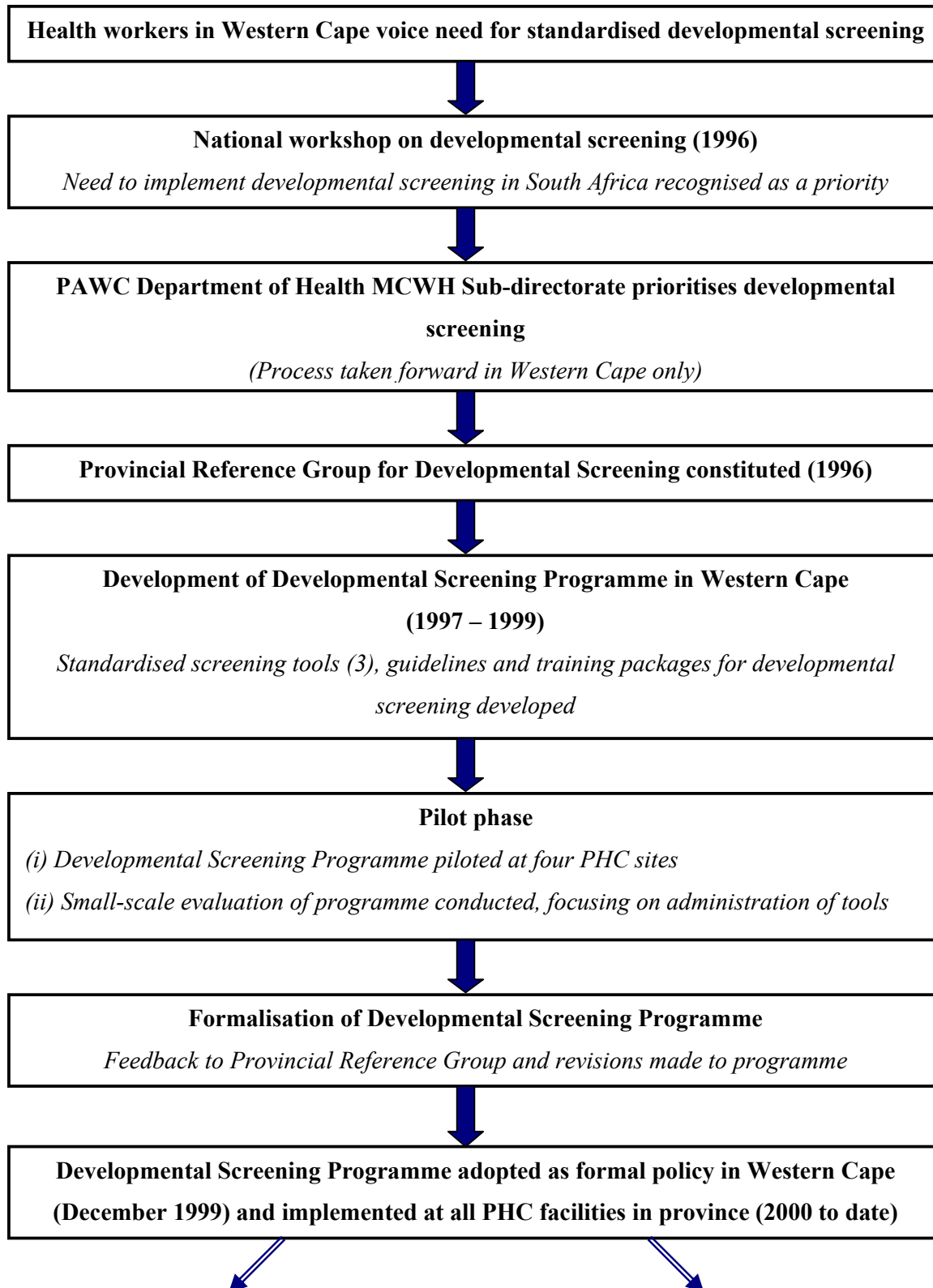
For many years, health workers in the Western Cape Province and throughout South Africa conducted screening for developmental disabilities. This screening however has often been conducted in a random way, using instruments which are not necessarily standardised or scientifically sound. In addition, adequate training packages and guidelines are frequently lacking, resulting in poor management of developmental disability in children.

In June 1996, a workshop of delegates from throughout the country was convened by the Child Health Policy Institute (now the Children's Institute) at the University of Cape Town to urgently address the role of developmental screening and the feasibility of developing a standardised tool for this purpose in South Africa. Consensus was reached that developmental screening for moderate and severe disability should be carried out. It was also stated that such programmes should be linked to appropriate interventions. The forum also outlined a proposed schedule for screening and criteria for the development of screening tools.

Following this workshop, the MCWH Sub-directorate of the Provincial Administration of the Western Cape (PAWC) Department of Health formed a multi-disciplinary and inter-departmental Provincial Reference Group to act on the workshop suggestions. From 1997 the Provincial Reference Group developed standardised screening tools and guidelines for developmental screening of children at 0 – 6 weeks, 9 months and 18 months of age, which were piloted at four primary health care (PHC) facilities across the province.

In December 1999, the Developmental Screening Programme was adopted as formal policy within the Western Cape Province. Since then, health workers throughout the province have been delivering developmental screening and much interest has been voiced in the development of a further tool for the 2 – 5 year age group. Before initiating this process and before responding to other provinces' requests for access to the Western Cape's Developmental Screening Programme, the Provincial Reference Group took a decision to evaluate the status of the delivery of the existing tools. Thus,

in 2001, the Children's Institute was commissioned by the MCWH Sub-directorate to evaluate the implementation of the programme. (See Figure 1)



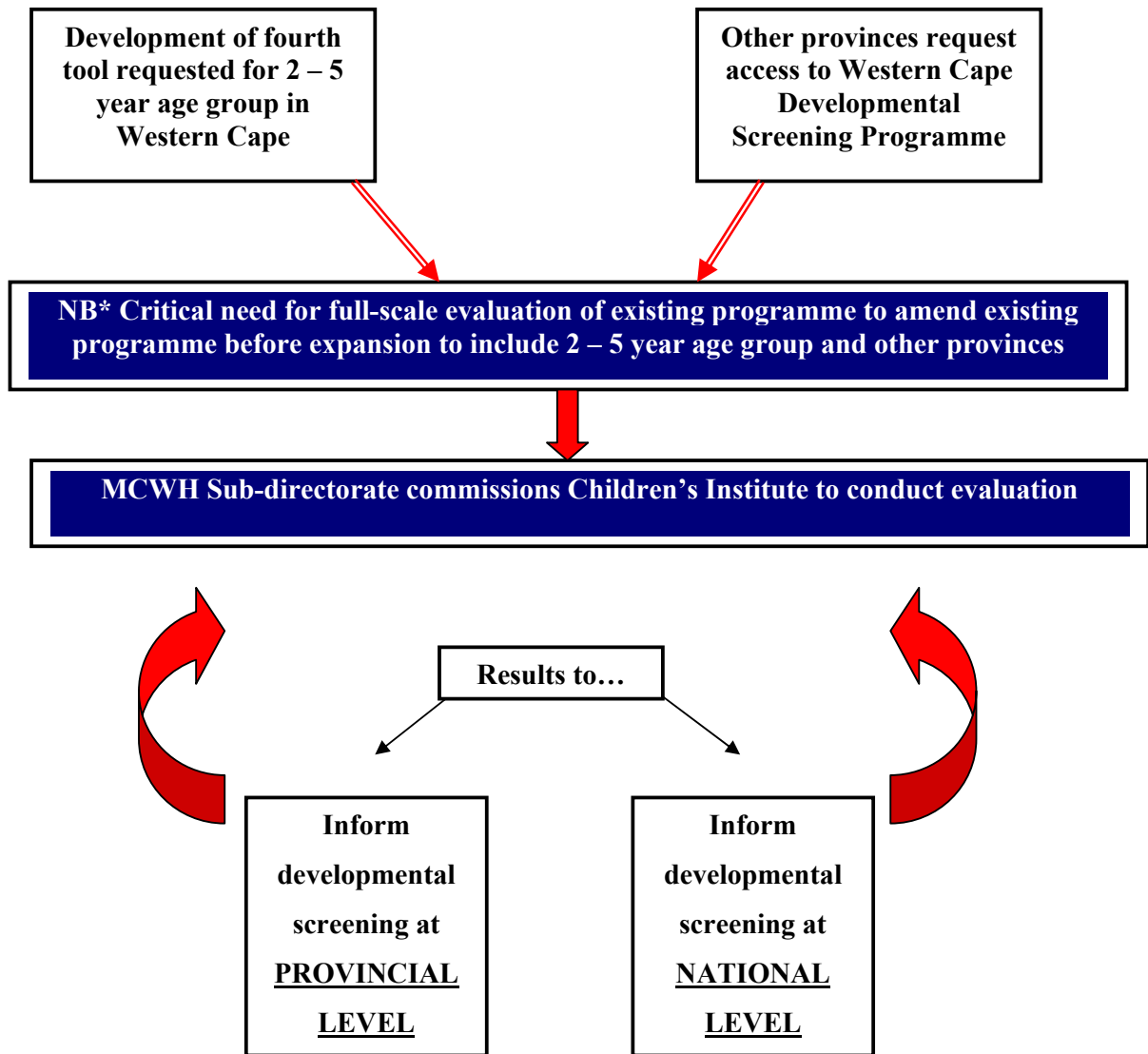


Figure 1: *Implementation process of the Developmental Screening Programme and the need for evaluation in the Western Cape*

1.2. Brief overview of the literature

1.2.1. Developmental disability and its prevalence

According to the World Health Organisation (WHO, 1980) developmental disability is defined as the “failure of a function or skill or an ability to perform a function within the normal range for children of that age” and affects approximately 10 – 12% of children in the developing world. Within the South African context, the prevalence of developmental disability in children is still not clearly established. The prevalence of moderate and severe disability in the overall population have been quoted to be in

the region of 12.4% (Department of National Population Development: Consensus 1993 in Wicht, 1997) and, more recently, between 5.7% and 6.1% (National Department of Health Survey, Schneider et al, 1999). Smaller epidemiological studies in South Africa estimate the prevalence of disability at approximately 6% of the childhood population within rural communities of the country (Corenljie, 1991; Irlam, unpublished; Kromberg et al., 1997 and Couper, 2000).

1.2.2. Rationale for early identification of developmental disability

The early years of life constitute a unique period for influencing the development of children, and the benefits of early identification of children with developmental delay or disability are well documented. By identifying such children early and providing the necessary intervention, adaptations to minimise the disability can be facilitated. Even if the direct intervention has a minimal outcome it is still important to identify the developmentally delayed/disabled child, so that social and emotional support can be provided to the family (Donald, 1994; Guralnick, 1997).

1.2.3. Rationale for developmental screening

The rationale for early identification in turn provides a rationale for the monitoring of child development in the early years. Despite there being international consensus regarding the importance of developmental monitoring, there remains little agreement on how such monitoring should be performed - what form monitoring should take and what tools should be used (Dworkin, 1989).

What is clear is that methods for developmental monitoring should be appropriate for a particular context. As developmental surveillance requires a high level of skill and thorough knowledge of child development, the preferred method for developmental monitoring in many developing countries, including South Africa, is developmental screening. Developmental screening involves the detection of disability in apparently healthy children within the primary health care setting, separating children into high and low risk groups for developmental delay/disability (Casey, 1993; Wicht, 1999).

1.2.4. General principles for developmental screening and criteria for screening tools

A number of general principles for developmental screening and specific criteria to be met by screening tools in South Africa were defined by the National Workshop for Developmental Screening Group (1996) and are outlined in *Box 1*. The criteria for screening were based on the recommendations of WHO (in Calman, 1994).

Box 1: *General principles for developmental screening and criteria for screening tools*

General principles for developmental screening

- Screening for developmental disability should only be done if linked to appropriate interventions.
- Screening should form a continuum of management, including development of referral strategies and case management guidelines.
- Parents/caregivers should play a pivotal role in developmental screening.

Specific criteria for screening tools

Tools should:

1. Be valid and reliable;
2. Be acceptable to the person implementing the test, the family and the person receiving the referrals;
3. Be easy to teach, learn and administer;
4. Be administered quickly (i.e. less than 5 minutes);
5. Be cost-effective;
6. Have clear guidelines for referral;
7. Be developed with consideration of the context in which they are being used;
8. Be linguistically and culturally appropriate; and
9. Be statistically reportable and usable

Source: *Consensus Statement on Screening for Developmental Disabilities, 1996*

1.2.5. Constraints regarding screening for developmental disabilities in South Africa

Barriers in the current South African health system to implement screening for developmental disabilities have been acknowledged. These include nurses' high workload and lack of time, as well as the lack of facilities and human resources for the management (intervention) of children with developmental disability, particularly at a PHC level (National Workshop Proceedings, 1996). The majority of provinces within South Africa, where reaching immunisation coverage targets is still a great challenge, view developmental screening as a "luxury" and thus have not addressed the delivery of developmental screening.

2. BACKGROUND AND DESCRIPTION OF THE DEVELOPMENTAL SCREENING PROGRAMME

“The systematic collection of information about project operations is the basis of all programme evaluation” (Jacobs and Kapuscik, 2000)

2.1. Introduction

The Western Cape Screening Programme for Developmental Disabilities in Pre-school Children, a standardised screening system to identify undiagnosed or unsuspected developmental problems in pre-school children, was introduced as formal policy in the Western Cape Province in December 1999 (Provincial Directive, Superintendent General, Department of Health and Social Services, December 1999). Since this time, health workers at PHC facilities have been delivering this programme, which involves the use of standardised screening tools to screen children when they visit the health facility for their immunisations at 6 weeks, 9 months and 18 months.

2.2. Background to the programme

2.2.1. Screening for developmental disabilities prior to the introduction of the Western Cape Developmental Screening Programme

Prior to the implementation of the Western Cape Developmental Screening Programme, screening for developmental disabilities was conducted by health workers but often in a random way and using instruments that were not necessarily standardised or scientifically sound. In addition, training packages and guidelines were frequently lacking, resulting in poor management of developmental disability in children (Provincial Directive, Superintendent General, Department of Health and Social Services, December 1999; Verbal Communication, Deputy-Director MCWH, PAWC Department of Health, 2002).

In 1993, for example, a national instruction was circulated to the provinces stating that screening should be done at newborn, 3 months, 6 months, 9 months, 12 months, 15 months, 18 months, 3 years and 5 years, but no guidelines on how to conduct the screening or referrals were provided. Many health workers had also attended training in developmental screening at tertiary hospitals and institutions (e.g. Developmental Service, Red Cross Hospital; Carel du Toit Centre, Tygerberg Hospital) or other

training sessions provided by academics in the field of developmental disabilities, from which they developed their own screening methods. As a result, screening for developmental disabilities was not empirically based and conducted in a non-uniform way (Verbal Communication, Deputy-Director, MCWH, PAWC Department of Health, 2002).

2.2.2. Need for and prioritisation of standardised developmental screening

From as early as the 1970s, health care workers voiced the need for standardised developmental screening. It was only in the 1990s however that developmental screening was placed on the child health agenda at a regional and provincial level in the Western Cape. In 1996 the Child Health Policy Institute (now the Children's Institute) convened a national workshop at the Child Health Unit, University of Cape Town, to urgently address the role of developmental screening and the feasibility of developing a standardised screening tool/s for this purpose in South Africa (Verbal Communication, Deputy-Director, MCWH, PAWC Department of Health; Developmental Screening Programme Training Packages, 1998, 1999).

At the national workshop on developmental screening, consensus was reached that screening for moderate and severe disability should be carried out in line with comprehensive PHC service delivery. It was also stated that such programmes should fully involve caregivers and be linked to appropriate interventions. This forum also outlined a proposed schedule for screening and criteria for the development of screening tools (National Workshop on Screening for Developmental Disabilities in the Pre-school Population: Discussion Document, 1996).

2.2.3. Continuation of the process in the Western Cape and establishment of the Provincial Reference Group for Developmental Screening

Following the national workshop, developmental screening was identified as a priority within the MCWH Sub-directorate of the Western Cape Department of Health. The Western Cape Province was the only province to take this process forward. Other provinces were concerned that their PHC services were not sufficiently developed to introduce such a programme. As screening had been conducted previously in the Western Cape, local role players from this province felt

that screening could be achieved through standardisation of existing practices.
(Verbal Communication, Deputy-Director, MCWH, PAWC Department of Health).

In taking developmental screening forward in the Western Cape Province, the MCWH Sub-directorate of the PAWC Department of Health set up a multi-disciplinary and inter-departmental Provincial Reference Group. The reference group was chaired by the Deputy-Director of MCWH and included representatives from the Chronic Care and Rehabilitation and Mental Health Sub-directorates of the Department of Health at a provincial level, regional health managers, the Western Cape Education Department, teaching and child development service provision institutions, other centres and NGOs involved with children with developmental disability, as well as health workers “on the ground” (Letter to regional directors from MCWH Sub-directorate, December 1997; Summary Programme Report, August 1999).

2.2.4. Formulation of the goal, aims and objectives of the Provincial Reference Group

The initial goal, aims and objectives of the reference group, which first convened in November 1996, are presented in *Box 2*.

Box 2: Initial goal, aims and objectives of Provincial Reference Group

Goal

To develop an integrated and co-ordinated system for the comprehensive management of childhood disability.

Aims

- To establish a system of early detection of developmental delay and disability in children under 5 years.
- To develop a referral system for children with developmental delay, addressing preventive, diagnostic and rehabilitative aspects of care.

Objectives

1. To develop screening tools for developmental assessment of children at 6 weeks, 9 months, 18 months and 3 years.
2. To develop a referral system for children with developmental delay, addressing preventive, diagnostic and rehabilitative aspects of care.
 - (a) To do an audit/situational analysis of services at each level of care.

- (b) Define services desirable at each level.
- (c) Identify relevant role players and team members at each level.
- (d) Integrate and co-ordinate services available.
- (e) Develop regional referral patterns and support systems between each level of care.
- (f) To construct a regional data base/resource directory to facilitate management.

Source: *Draft miscellaneous document, September, 1997*

As can be seen from the aims and objectives, the reference group endeavoured not only to develop standardised screening tools but also to develop a referral system for children identified with developmental delay. In 1997, a provincial directive was issued regarding referral routes in the Western Cape, and thus the reference group's role in the development of a referral system for each of the regions came to be viewed more as a facilitation function. (*See revised objectives in Box 3*)

Box 3: *Revised reference group objectives*

Objectives

1. To develop screening tools and guidelines for developmental assessment of children at 0 – 6 weeks, 9 months, 18 months and 2 – 5-and-a-half years.
2. To develop training packages for each of these screening tools.
3. To pilot these screening tools and to implement them with support to the districts.
4. To facilitate the development of a referral system in each region.

Source: *Progress Report, May 1998*

2.3. Programme context

It is critical that the development and implementation of the Developmental Screening Programme is considered within the broader context of the health system in the Western Cape.

2.3.1. Location and prioritisation of the Developmental Screening Programme within the PAWC Department of Health

The Developmental Screening Programme falls within the MCWH Sub-directorate of the Programme Development Directorate of the PAWC Department of Health. While the programme has been prioritised in that it has become formal policy within the province, it does not receive high priority within the Programme Development

Directorate. Currently programmes such as those addressing HIV/AIDS and TB receive the greatest focus at a provincial level. This has filtered through to a regional level where regional role players have indicated that the Developmental Screening Programme is a low priority, even within their MCWH Sub-directorates.

2.3.2. Developmental screening within the context of primary health care delivery in the Western Cape

The development and implementation of the Developmental Screening Programme has taken place during a period of much change and restructuring within the Department of Health. In addition to the introduction of free health care for children under 6 years in 1994, the more recent shift towards the District Health System and the delivery of comprehensive, integrated services at a PHC level has had an enormous effect on health facilities, health workers and the services they deliver. These changes as well as the current emphasis on curative care have significantly influenced the delivery of preventive services including developmental screening. These issues will be discussed in further detail in the *Discussion* chapter.

2.4. Programme description

2.4.1. Vision, aims and objectives of the programme

Although the Provincial Reference Group established objectives for the development of the tools and training, no explicit vision, aims and objectives were formulated for the Developmental Screening Programme at the level of implementation. Furthermore, indicators and targets for the monitoring and evaluation of the programme were not defined.

2.4.2. Funding of the programme

In 1997 a private company, Johnson & Johnson, formed a partnership with the Provincial Reference Group with an agreement to provide funding for the training component of the programme. A total of R80 000 was granted to the reference group towards the development of teaching and training materials from 1998 – 1999. (Letters from reference group to private company requesting funding, December 1997, November 1998).

2.4.3. Overview of the development, pilot and implementation phases of the programme

In accordance with the outlined objectives, the development of screening tools guidelines and training packages commenced in 1997. Development and implementation was comprised of three phases:

- **Development phase:** Development of the core components of the programme.
- **Pilot phase:** Pilot of the programme, including training, implementation and monitoring and evaluation at selected pilot sites.
- **Implementation phase:** Formal implementation of programme across the province, including regional training workshops, culminating in the Developmental Screening Programme being adopted as formal policy in Western Cape.

2.4.4. Development phase

Based on observation of the PHC System, including health facility workloads, attendance patterns of children at health facilities and local and international research, the reference group decided to develop screening tools for the 0 – 6 weeks, 9 months and 18 months age groups. Screening would coincide with immunisation visits, where attendance was notably higher. The feasibility of developing a screening tool for the 2 – 5 year pre-school age group was questioned. Issues included:

- (1) Children should already be identified before two years,
- (2) No immunisations were required between 2 – 5 years,
- (3) Irregular clinic attendance at this age; and
- (4) The wide age range for which to develop a tool.

Thus it was decided to focus on the development of the first three tools (Letter to regional directors from MCWH Sub-directorate, December 1997; Programme Summary Report, August 1999; Programme Training Packages, 1998, 1999). The 0 – 6 week, 9 month and 18 month screening tools, guidelines for delivery and training packages were developed sequentially from 1997 – 1999.

Components developed

Four core components were developed, piloted, reviewed and implemented as part of the Developmental Screening Programme. These included:

- a) Standardised screening tools for screening at 0 – 6 weeks, 9 months and 18 months.
- b) Standardised guidelines to complement each of the three screening tools.
- c) Training packages to train staff on each of the three screening tools.
- d) Guidelines for the referral of children identified via developmental screening for further assessment and management.

An additional component was later introduced and did not form part of the DSP policy document:

- e) Stimulation guidelines to assist health workers in providing information to caregivers on stimulating their children.

a) Standardised screening tools

The three screening tools developed for the Developmental Screening Programme were based on existing local screening tools (that is, old screening tools used previously in the province), with additional input from other national and international tools and research findings in the field of developmental disability, for example the “Ten Questions Screen Questionnaire” developed by Durkin and Khan (1995). The tools were developed so that they could be rapidly administered, were short, simple and easy to use and sensitive and reliable (Programme Training Packages, 1998, 1999).

A physical examination was included in the screening tools to reinforce the idea of a comprehensive PHC approach. The focus of the tools however was on identifying developmental disability, covering all aspects of development, i.e. gross and fine motor, language and hearing, vision, psycho-social development and mental health. Caregiver involvement and the notion that the “caregiver knows the child best” formed the foundation of these tools, with several old tests/hands-on testing methods, such as the rattle hearing test, using the Manchester High Frequency Rattle, being replaced by questions to the caregiver (Minutes, 7th Provincial Reference Group

Meeting, 5 December 1997; Programme Training Packages, 1998, 1999; Verbal Communication, Deputy-Director, MCWH, PAWC Department of Health, 2002). The tools were designed in such a way that they could be used as referral forms with space for health worker comments.

b) Standardised guidelines

For each of the screening tools, a standard set of guidelines was developed in English and Afrikaans to assist health workers to administer the tools. Guidelines provided health workers with information on preparing the clinic setting, equipment needed and administration of each item of the screening tool. Clear illustrations provided further guidance to health workers on physical examinations, observations and recording screening results.

c) Training packages

The Provincial Training Task Team, a sub-group of the reference group, developed training packages for each of the three tools. The training packages formed the basis of a six-hour workshop covering theoretical aspects of child development and screening, information on screening for developmental disabilities in the Western Cape Province (including formulation and implementation of the programme) and training on the content and administration of each tool (Letter to regional directors regarding regional training workshops, June 1998).

d) Referral guidelines

At the request of the health care workers, guidelines for the referral of children for further developmental assessment and management were developed. In these referral guidelines, referral points (e.g. medical officer, regional paediatrician, health therapist) for each abnormality or delay were suggested. Each district and region was asked to identify their own specific referral routes in accordance with the provincial health policy for referral pathways and determined by their own health resources.

e) Stimulation guidelines

In addition to the core components of the Developmental Screening Programme, stimulation guidelines for health workers, aimed at caregivers, were developed at the request of the health workers. The development of these stimulation guidelines (for each of the three screening ages) was co-ordinated by the regional Rehabilitation Co-ordinator in the Southern Cape/Karoo, with input from other therapists on the Provincial Reference Group.

2.4.5. Pilot phase

Pilot sites for the Developmental Screening Programme were chosen in consultation with role players in the four health regions and approved by the regional directors. During the pilot phase of implementation, these pilot sites received training and continued support from the Provincial Training Task Team. An external evaluator formally monitored implementation at the pilot sites. Based on the recommendations of the evaluator, together with recommendations made by health workers at the pilot sites and other stakeholders, the tools, guidelines and training packages were reviewed and finalised.

Selection of pilot sites

Four pilot sites with differing characteristics were selected (Minutes, 7th Provincial Reference Group meeting, 5 December 1997:

1. Boland/Overberg Region: Grabouw Community Health Centre

A rural town, including mobile, clinic and private services.

2. Southern Cape/Karoo Region: Heidelberg Community Health Centre

A rural health facility with a mobile unit.

3. Metropole Region: Malibu Clinic

An urban health facility with satellite facilities and a mobile unit.

4. Metropole Region: Mzomomphle Clinic

This pilot site was added in response to the concern raised by Provincial Reference Group members that the tools were not piloted in a Xhosa-speaking community in the region.

The programme was not piloted in the **West Coast/Winelands Region** due to a lack of infrastructure in the regional office at that stage.

Training and support of health workers at pilot sites

The Provincial Training Task Team provided training and ongoing support to health workers at the selected pilot sites. This task team provided regular feedback to the reference group, regional directors and pilot sites, and so contributed to changes and improvements in the training packages.

Although training is a regional and not a provincial function it was decided that the MCWH Sub-directorate at a provincial level and the reference group would provide the initial training via the task team to facilitate and introduce the programme to future trainers at a regional level. It was agreed that, following the initial training by the task team (during the pilot and early implementation phases), the Human Resource Development (HRD) sections in each region would provide continuing in-service training on the programme.

Pilot phase monitoring and evaluation

An external evaluator undertook formal monitoring and evaluation during the pilot phases of the 0 – 6 week and 9 months Developmental Screening Tools (Programme Progress Report, May 1998; Programme Training Packages, 1998, 1999). This monitoring and evaluation focused predominantly on the tools and their acceptance and ease of use in the clinic setting.

Observation of developmental screening, evaluation of training and recommendations and interviews with professional nurses and caregivers were mostly positive. Tools and guidelines were reported to have met expectations and to be working well. Minor changes were suggested to improve the pilot tools, guidelines and training packages. These were subsequently incorporated into final drafts (Minutes, 12th Provincial Reference Group Meeting, 9 October 1998; Lavies, Report on monitoring and evaluation of the 0 – 6 weeks and 9 months Developmental Assessment Pilot Tool, July 1998, October 1998).

2.4.6. Implementation phase

Once the pilot phase of the programme was completed at the selected sites, implementation was extended to all other facilities across the province. This initial implementation phase included the provision of two training workshops by the Provincial Training Task Team in each of the four health regions. Once all training workshops had been completed, the Superintendent General issued a provincial circular in December 1999, obliging health workers to deliver developmental screening at a PHC level.

2.5. Context for current evaluation

From early 2000, health workers at PHC level throughout the province began to deliver the Developmental Screening Programme, with training provided by the HRD sections of the regional health departments. Already in the early stages, health workers and health managers voiced much interest in the development of a fourth screening tool for the 2 – 5 year age group. In addition, requests were received from other provinces for access to the existing screening tools. As no formal evaluation of the implementation and delivery of the programme had been conducted, the MCWH Sub-directorate and reference group took a decision to conduct an “audit” of the programme prior to commencing with the development of a further tool.

In March 2001, the MCWH Sub-directorate, together with the reference group, commissioned the Children’s Institute (then Child Health Policy Institute), University of Cape Town, as primary researcher to conduct an evaluation of the programme. The evaluation commenced in August 2002 on receipt of external funding.

3. METHODOLOGY

3.1. Purpose, scope, aims and objectives

Purpose

The purpose of this study was to inform policy and practice regarding screening for developmental disabilities in the Western Cape Province. Furthermore, it was envisaged that the findings of this research would be used to inform policy and practice at a national level.

Scope

This evaluation focused on the input, process and output parameters of the Developmental Screening Programme. Outcomes of the programme (i.e. in terms of the developmentally delayed child) were not evaluated, as this requires a cohort study lasting at least five years.

This study did not examine the scientific validity and reliability of the three screening tools. This requires a separate study.

Aim

The aim of this research was to evaluate the implementation of the Western Cape Province Screening Programme for Developmental Disabilities in Pre-school Children.

Objectives

The objectives of this project were:

1. To document the background to, as well as the development and implementation, of the Developmental Screening Programme.
2. To describe the current delivery of the programme.
3. To determine barriers and success factors within the implementation process.
4. To make recommendations to the Western Cape Province Department of Health regarding the Developmental Screening Programme.

3.2. Definition of variables

To meet these objectives, the following variables were defined, as outlined in *Table 1*.

Table 1: *Definition of variables to be measured*

OBJECTIVE	VARIABLE TO BE MEASURED
1. Background, development and implementation of the Developmental Screening Programme	Why and in what context was the programme developed?
	Who initiated the process and who were the key role players?
	How and where is the programme placed within the Western Cape health system?
	How and over what time period was the programme implemented?
	What core and supportive components form part of the programme?
	What evaluation has taken place to date and why is this evaluation being carried out?
2. Current delivery of the programme	<i>What?</i> Components of the programme.
	<i>Where?</i> Settings within which the programme is carried out.
	<i>Who?</i> Personnel involved in the administration of the programme.
	<i>When?</i> When each of the tools are administered.
	<i>How?</i> The way in which each of the tools are administered.
	<i>How long?</i> Administration time.
	<i>How many?</i> Number of cases screened, identified, referred.
	<i>What next?</i> Referral/follow-up process.
3. Barriers and success factors in implementation	Does the programme meet criteria for screening?
	What success factors are promoting implementation?
	What barriers are hampering implementation?

3.3. Study design

This health systems research project employed a descriptive study design.

3.4. Study area

The study was carried out at a provincial, regional and district level throughout the Western Cape Province. Investigations took place at the PAWC Department of

Health, within the Metropole, Boland Overberg, Southern Cape/Karoo and West Coast/Winelands regional offices and at selected PHC facilities within each region.

3.5. Overview of methods

The data collection for this study constituted four stages, as outlined in the *Figure 2*.

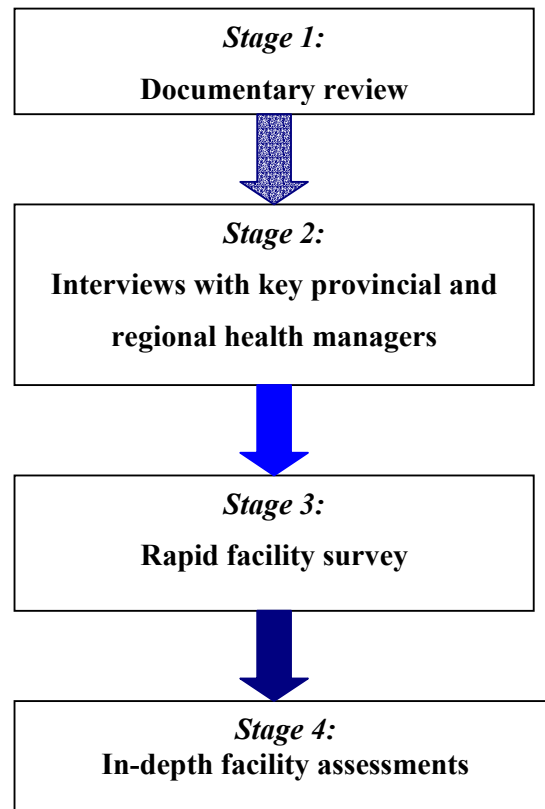


Figure 2: *Stages of data collection*

3.6. Sources of information and sampling

The sources of information and sampling during these four stages of data collection were as follows:

STAGE 1: Documentary review

Sources of information:

The following written documentation was used to obtain information regarding the background, development and implementation of the Developmental Screening Programme:

- PAWC Department of Health Provincial Circular No. H159/99, dated 23 December 1999, including:
 - o Policy statement regarding implementation of Developmental Screening Programme;
 - o Standardised Developmental Screening Tools (6 weeks, 9 months, 18 months) and guidelines (for health workers on administration of tools);
 - o Road-to-Health-Card and proposed method for record-keeping of screening results;
 - o Referral guidelines (for further assessment and management of children).
- Training packages for training of health workers on developmental screening at 0 – 6 weeks, 9 months and 18 months.
- Discussion document on screening for developmental disabilities from the National Workshop on Screening for Developmental Disabilities (1996).
- Report on monitoring and evaluation of the pilot phase of the implementation of the Developmental Screening Programme (Lavies, July, October, 1998).
- Summary programme reports (1998, 1999) compiled by Deputy-Director, MCWH.
- Select letters from Deputy-Director, MCWH, to regional directors (1997, 1998).
- Select minutes of Provincial Reference Group meetings (1997 – 2002).

Sampling:

All documentation related to the Developmental Screening Programme was utilised during this stage of the research.

STAGE 2: Interviews with key provincial and regional health managers

Sources of information:

- Deputy-Director of MCWH in the PAWC Department and the Chairperson of the Provincial Reference Group for the Developmental Screening Programme.
- Four regional MCWH or Rehabilitation managers (one from each of the four health regions in the Western Cape Province) integrally involved in the Developmental Screening Programme.

Sampling:

All designated provincial and regional health managers involved in the Developmental Screening Provincial Reference Group were interviewed in this study.

STAGE 3: Rapid facility survey**Sources of information:**

A random sample of all health facilities in the province was contacted telephonically to obtain a rapid overview of the delivery of developmental screening across the province.

Sampling:

A random 12% sample of all PHC facilities in the province was generated by computer, using the MS Excel random number generator. The 12% sample was based on the percentage of facilities in the province expected to be implementing the programme. The random sample was stratified per region to obtain a proportional representation of facilities per region. Where facilities could not be contacted, a new random number (and hence facility) was generated.

STAGE 4: In-depth facility assessments**Sources of information:**

Of the telephonic survey sample, 20% of facilities contacted telephonically (nine PHC facilities out of 44) were earmarked for an in-depth facility visit. One Developmental Screening Programme pilot site and one non-pilot site within each of the four regions were selected. An additional non-pilot site in the Metropole was selected as a more typical facility within this region, i.e. a large facility serving a densely populated township.

During these nine in-depth facility assessments, information was gathered from the following sources:

- Nurse managers, who provided information for the facility profile.
- Clinical observation of health workers delivering developmental screening.
- Interviews/focus groups with health care workers involved with the delivery of the Developmental Screening Programme.

- Exit interviews with caregivers.
- Record reviews.

Sampling

Sampling of facilities

Pilot and non-pilot sites were selected to eliminate the bias of investigating the pilot sites alone. In this way the study would also be able to demonstrate whether the intense pilot input and training was effective. Pilot sites were matched with non-pilot sites so that comparisons between the facilities could be drawn. Matching was based on the geographical location of the pilot site (urban, peri-urban or rural) and the concomitant socio-economic characteristics of the district served. Each non-pilot site was located within a district similar to that of the pilot site but was not located within the same district to avoid the “spill-over” effects of the programme implementation from the pilot site. Matching was also based on the size of the facility as measured by nursing staff complement to optimise comparability between facilities. Exact matches could not always be drawn.

Sampling of participants at health facilities

All nurse managers at the facilities visited were interviewed to obtain a profile of the facility. The researcher observed developmental screening conducted during visits to the facilities. All health workers involved with the delivery of the Developmental Screening Programme were interviewed individually or within focus group discussions. The number of health workers/focus group participants was dependent on the number of staff available on the day of site visits and ranged from one to four.

The first available caregivers exiting from the developmental screening consultations were interviewed subject to consent. The number of caregivers interviewed was dependent on the number of developmental screens conducted and was subject to caregiver consent.

Clinic records were randomly selected for review of developmental screening entries.

3.7. Data collection

3.7.1. Procedure

To achieve these objectives, a combination of quantitative and qualitative data was gathered in stages from all levels of the health system (provincial, regional and district levels), using a number of different methods. In addition to documentary and literature reviews, information was gathered via structured interviews with key health managers at a provincial and regional level, a telephonic survey and facility-based assessments. Data collection at health facilities included structured interviews with nurse managers to obtain a profile of the facility, clinical observations of developmental screening, interviews/focus groups with health workers, exit interviews with caregivers and record reviews. The detailed data collection procedure is outlined in *Figure 3*.

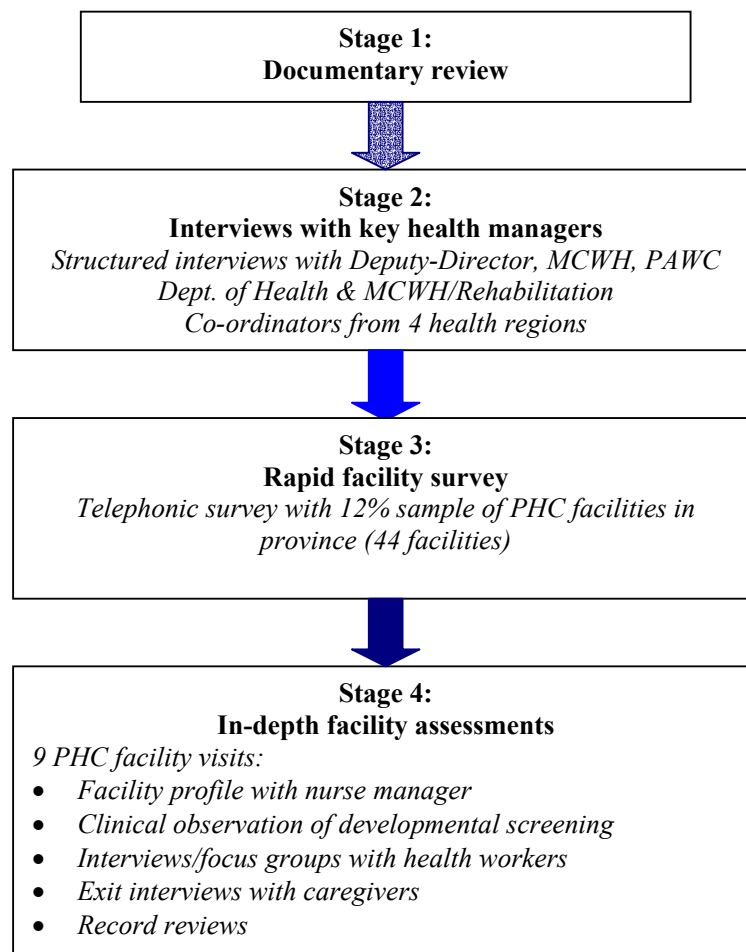


Figure 3: *Detailed stages of data collection*

3.7.2. Instruments

Data collection instruments used during the four stages of data collection included structured interview schedules, structured questionnaires for the telephonic survey, facility profile data capture forms, observational checklists, focus group guidelines, exit interview guidelines and record review data capture forms. These instruments were all piloted at a designated health facility prior to the commencement of formal data collection.

Stage 1 instruments

No structured instruments were developed for the documentary review. All relevant information from the documents was recorded and utilised for the documentation of the background, development and implementation of the Developmental Screening Programme.

Stage 2 instruments

Structured interview schedules: Interviews with provincial and regional health managers

Structured interview schedules were developed for the semi-structured interviews (interviews using a structured instrument but allowing for varying clarification techniques and questioning) with key health managers at a provincial and regional level. Most questions were open-ended in nature, allowing respondents to elaborate on any answers and reply in different directions. Ambiguous, multiple, leading and loaded questions were avoided. Summary questions were included at the end of each section to ensure that questioning was exhaustive. The content of the interview schedules encompassed the objectives and variables of the study with each schedule divided into the following sections:

1. Background, development and implementation of the Developmental Screening Programme
2. Current delivery of the Developmental Screening Programme
3. (Perceived) barriers and success factors in implementation.

The interview schedules for the interviews with the provincial health manager and regional health managers differed slightly in terms of content. A number of additional questions regarding the background, development and implementation of the

Developmental Screening Programme were asked of the provincial health manager, while other relevant questions were asked of the regional managers, e.g. additional question posed to West Coast/Winelands regional health manager: “*Why was there no Developmental Screening Programme pilot site in your region?*”

Stage 3 instruments

Structured questionnaire: Rapid facility survey

A structured questionnaire, consisting of 22 items to be administered over the telephone to health workers in the 12% facility sample, was developed. A telephonic questionnaire was chosen over a self-administered questionnaire because of likely poor response rates due to communication problems (not receiving questionnaires) and time constraints at health facilities.

The format of the questionnaire was designed to facilitate maximum understanding by respondents by avoiding ambiguous or non-specific questions, including only one concept and no biased or emotionally laden words. Questionnaires were also prepared to keep administration time to a minimum. The questionnaire included multiple types of questions, including fixed alternative questions (with yes/no response or choice of three or four responses), scale items and a limited number of open-ended questions requiring specific factual information.

The content of the questionnaire related to the current delivery variables of this study. The questionnaire was divided into the following sections:

1. Awareness of the programme
2. Use of the tools
3. Appropriate use of the tools
4. Capacity to implement
5. Referral and follow-up
6. Statistics
7. Other comments

Stage 4 instruments

Facility profile data capture form

A standard data capture form was designed to obtain facility-related information from the nurse manager at each of the clinics and community health centres (CHCs) visited. This facility profile included both a service and staff profile, with a focus on preventive services rendered (including developmental screening).

(a) Observational checklists

Four observational checklists, i.e. a general health facility observational checklist and three developmental screening observational checklists for observation of developmental screening at 0 – 6 weeks, 9 months and 18 months, were developed for this study.

The health facility observational checklists included questions regarding the overall friendliness and child friendliness of the facility, as well as the manner/ease in which preventive services (immunisations and screening) were run within the facility. Notes were taken by the researcher and corroborated by the research assistant in response to these checklist questions.

Observational checklists for observation of the administration of the three developmental screening tools were developed, based on the standardised developmental screening guidelines. These checklists made provision for the researcher to record which items in each of the tools were or were not completed by the health worker and were or were not administered in accordance with the guidelines. Checklists also allocated space for notes on screening time, other activities required of the health workers, as well as any other general notes on screening observed.

(b) Focus group guidelines

Focus group guidelines for focus groups with health workers involved in the delivery of developmental screening at each of the facilities visited were devised, including topics for discussion to yield the following key information:

- Importance of developmental screening
- Implementation of the programme, with a focus on training
- Delivery of the programme
 - What did they like about it?
 - What did they dislike about it?
- Overall effectiveness of the programme
 - Barriers and success factors
- Recommendations for improvement

Topics for discussion were posed via open-ended questions to encourage participants to talk freely and spontaneously, not only yielding information regarding the delivery of developmental screening, but opinions and perceptions regarding the strengths of the programme and challenges faced.

(c) Exit interview guidelines: Interviews with caregivers

Exit interview guidelines for interviews with caregivers were developed in the same way as the focus group guidelines, with a series of five prompt questions. This semi-structured approach was chosen over a structured set of questions to overcome cultural barriers, i.e. to avoid caregivers responding only positively (“yes”) to closed-ended questions. Interviews were conducted in the caregiver’s home language by a research assistant.

(d) Retrospective record review data capture sheet

A data capture form was developed to record information on children who had failed the Developmental Screening Programme (i.e. identified as being possibly developmentally delayed) and follow ups at the next levels of care (referral points at secondary and tertiary levels of care). However, this form could not be used in practice as facilities did not record children who have previously failed developmental screening and hence there was no mechanism for follow-up.

3.8. Pilot study

Prior to the commencement of the formal data collection, a pilot study of stages three and four of the research methods was carried out. The pilot study of stage three included the administration of the telephonic survey with one facility from each of the four health regions. Stage four included an in-depth facility assessment at a PHC

facility in the Metropole Region (second Developmental Screening Programme pilot site in the Metropole Region), which was not to form part of the formal evaluation.

The aims of the pilot studies were threefold:

1. To estimate the time required for each aspect of data collection, in particular the time needed to administer the telephonic survey questionnaire.
2. To familiarise the researcher with the methodology and research instruments, in particular the dynamics around conducting an evaluation at health facilities.
3. To determine whether any changes to the methodology and/or research instruments were required.

Based on the findings of the pilot studies, minor changes were made to the research instruments. Some insights were also obtained into the constraints of once-off facility visits and logistics of collecting data within the busy clinic environment.

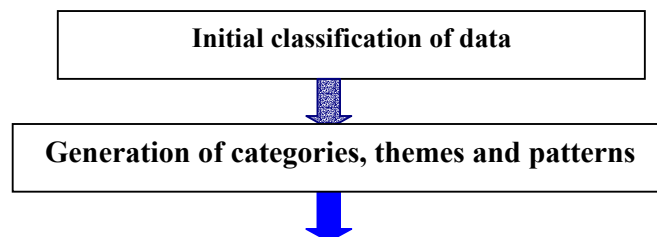
3.9. Data analysis

Stage 1 analysis

Information gathered from documentary reviews was recorded and included in the description of the background, development and implementation of the programme.

Stage 2 analysis

Interviews conducted with health managers at a provincial and regional level were transcribed verbatim and analysed thematically to extract both factual information regarding the background, development and implementation of developmental screening, as well as perceptions and impressions regarding the current delivery of the Developmental Screening Programme. The procedure followed for this thematic analysis incorporated the work of three sources on qualitative data analysis: Patton (1990), Corbin and Strauss (1990) and Marshall and Rossman (1995), and is outlined in *Figure 4*.



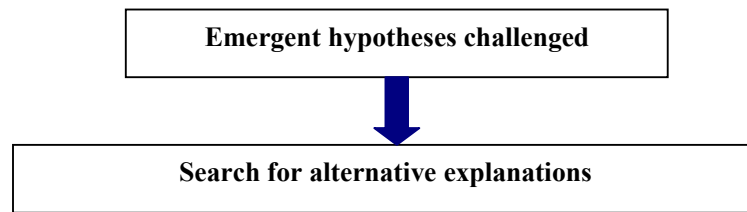


Figure 4: *Stages of data analysis*

Initial classification of data

Once all raw data were gathered and transcribed, the researcher studied each of the interview transcriptions, making comments in the margin. These comments included ideas and perceptions of particular observations, sentences and paragraphs. Each of these incidents, ideas or events was then given an identifying label. Incidents were then compared so that common phenomena received common names.

Generation of categories, themes and patterns

Once phenomena had been identified, groups or categories of phenomena were formed. Categories were provided with more abstract names but remained sufficiently transparent to reflect on the meaning of the raw data. Category sheets in MS Word were then set up and coded raw data from transcriptions pasted under relevant category headings. Categories were then examined for convergence and divergence to determine to what extent data were compatible within a particular category. Categories were also expanded by linking (bridging and surfacing) categories.

Emergent hypotheses challenged and search for alternative explanations

At this stage, data was searched to challenge the established hypotheses to find information that was not in agreement. When challenging these patterns, alternative explanations were sought, identified and described to demonstrate why a particular explanation was the most plausible.

Stage 3 analysis

Data collected via the telephonic survey were coded, entered into a MS Excel spreadsheet and then imported into EpiInfo (Version 6.04) for analysis. The statistical analysis was predominantly descriptive in nature and yielded important qualitative information and patterns regarding the delivery of the Developmental Screening Programme across the province.

Stage 4 analysis

Data collected from facility profiles, observational checklists and record reviews were summarised on summary and tally sheets to be presented in a descriptive fashion and examined for trends and patterns.

Data gathered from interviews/focus groups with health workers and exit interviews with caregivers were analysed using the same methods as for the analysis of interviews with health managers.

3.10. Procedure adopted to enhance and determine rigour of analysis

A number of methods were employed in this study to enhance and determine the rigour of the data analysis procedure. These were based on the methods proposed by DePoy and Gitlin (1994), Joubert and Katzenellenbogen (1997) and Jacobs and Kapuscik (2000), and are outlined below:

- **Reflexivity, subjective assessment of interview setting and data on characteristics of respondents**

DePoy and Gitlin (1994) and Katzenellenbogen and Joubert (1997) stress the importance of reflexivity or self-examination by the researcher to determine the effects he/she and the environment have on data collection. They also encourage reporting on the characteristics of respondents (participants) to give an indication of the reliability of responses.

In this study, such notes were made during and after facility visits (in observational notes and transcriptions of interviews/focus groups), e.g. regarding the researcher's relationship with the health workers and their willingness to provide information and the influence of clinic timetables and activities on the ability to conduct interviews and obtain information.

- **Triangulation**

Triangulation, a process whereby one source of information is compared to another, was used in the study to confirm and validate findings. Information obtained from interviews with provincial and regional health managers regarding current delivery of

the programme was for example compared with quantitative data from the telephonic survey.

- **Peer review**

In addition to the above-mentioned triangulation techniques employed, a research assistant who accompanied the researcher on all facility visits was able to perform a peer review function for data collected. Observations made by the researcher during facility visits were compared with those of the research assistant.

3.11. Limitations of the study

The inability to access information from the consumer population (i.e. the caregiver population), as well as information from record reviews is acknowledged as a limitation of this study. It is also believed that the brief and once-off nature of the facility survey and site visits may have constrained the amount and quality of information gathered directly via discussions and observations of health workers.

3.12. Ethical approval and ethical considerations

Prior to the commencement of this research project, ethical approval was obtained from the Research and Ethics Committee of the PAWC Department of Health, as well as the Ethics Committee of the University of Cape Town. Ethical approval from the Department of Health included permission to conduct the study within public health facilities. This was later confirmed with regional directors and relevant local authorities and health facility managers.

Written and verbal consent was obtained from all participants in this study. Privacy and confidentiality of participants was ensured. No patient details were recorded and staff anonymity was observed.

3.13. Dissemination of results

Anticipated outputs:

1. Full technical report, including brief introduction and literature review, programme history, results on the current delivery of the programme, discussion of key issues and recommendations.
2. Executive summary report highlighting the above.

3. Formal oral presentations.
4. Relevant publications and conference presentations

The above-mentioned written and oral presentations will be delivered to the following groups within the PAWC Department of Health:

1. MCWH Sub-directorate
2. Provincial Reference Group for Developmental Screening
3. MCWH Advisory Committee
4. Regional Directors of Health
5. PAWC Top Management Team

3.14. Ownership of outputs

The following was agreed in terms of the contract between the MCWH Sub-directorate of the PAWC Department of Health and the Children's Institute, University of Cape Town:

- The ownership of all research project outputs is that of the MCWH Sub-directorate of the PAWC Department of Health.
- Appropriate academic presentations and publications may be made by the senior researcher at the Children's Institute with prior approval from the MCWH Sub-directorate.
- The final draft of any publication or oral presentation should be approved by the MCWH Sub-directorate.
- Full acknowledgement of the PAWC MCWH Sub-directorate must be made in all written and verbal outputs.
- The Children's Institute will be reflected on all publications and presentations as the primary researcher of the project.
- All other contributors will be appropriately acknowledged.

4. RESULTS

4.1. Sources of information

The results of this study detailing the current delivery of the Developmental Screening Programme and presented in this chapter are based on information from the following sources:

- (a) Key provincial and regional health managers interviews;
- (b) Rapid facility survey; and
- (c) In-depth facility assessments:
 - Focus groups with health workers
 - Observation of developmental screening by the researcher
 - Exit interviews with caregivers
 - Retrospective record reviews.

(a) Key provincial and regional health managers interviews

The provincial health manager interviewed for this study was the Deputy-Director of MCWH, PAWC Department of Health and the Chairperson of the Provincial Reference Group for Developmental Screening. The regional health managers who participated in this study are described in *Table 2*.

Table 2: *Description of regional health managers interviewed*

Region	Current position	Years on reference group
Metropole	Programme Manager, Comprehensive Health	1996 – 1999
Southern Cape/Karoo	Rehabilitation Co-ordinator	1996 – present
West Coast/Winelands	Deputy-Director, Comprehensive Health	1996 – 1999
Boland/Overberg	MCWH Co-ordinator	1998 – present

(b) Rapid facility survey

Of the 44 facilities contacted for the rapid facility survey, 75% (n = 33) were PHC clinics and 25% (n = 11) were CHCs. The breakdown of facilities telephoned per region was proportional to the total complement of health facilities per region. Almost 40% (n = 16) of the facilities contacted for example were in the Metropole Region,

which has the densest population and the highest number of health facilities. (See Table 3)

Table 3: Breakdown of facilities telephoned in each region

Region	Frequency	Percentage
Metropole	16	36.4%
Southern Cape/Karoo	12	27.3%
West Coast/Winlands	9	20.5%
Boland/Overberg	7	15.9%
Total	44	100%

(c) In-depth facility assessments

The nine facilities where in-depth assessments took place served either an urban or rural population and varied in terms of patient load and staff complement. A facility description is provided in Table 4.

Table 4: Health facilities visited

Facility	Pilot/Non-pilot site	Clinic/CHC	Urban/rural	Monthly patient load < 5yrs	Prof. nurse complement
Metropole					
M1	Pilot	Clinic	U	618	2
M2	Non-pilot	Clinic	U	348	5
M3	Additional non-pilot	CHC	U	1355	6
Southern Cape/Karoo					
SCK1	Pilot	CHC	R	503	5
SCK2	Non-pilot	CHC	R	784	4
West Coast/ Winlands					
WCWL1	Non-pilot	Clinic	R	755	3
WCWL2	Non-pilot	Clinic	R	596	6
Boland/Overberg					
BOVB1	Pilot	CHC	R	627	14
BOVB2	Non-pilot	Clinic	R	591	3

Observation of developmental screening by the researcher

The researcher observed an average of three children screened at each health facility that was visited. At some health facilities more screens were observed, while at two facilities no screening took place during the visit. Other sources of information (including focus group with health workers and retrospective record reviews) were

used to draw conclusions regarding the administration of the tools at these two facilities.

Focus groups with health workers

Health workers who participated in focus groups were predominantly professional nurses, although a number of staff nurses also provided information. The number of health workers who participated ranged from one to six.

Exit interviews with caregivers

Although the researcher planned to conduct interviews with caregivers exiting from their developmental screening consultations with health workers, accessing caregivers proved problematic. The few caregivers that were interviewed did not offer expectations regarding developmental screening and or were reluctant to share information regarding the quality of service provision in general. This source of information thus had to be discarded.

Retrospective record reviews

Difficulties were also encountered in the retrospective review of records of patients who had failed developmental screening. As health workers did not keep a register of children who failed developmental screening, they were unable to provide the researcher with records that could be used to track the referral and follow-up of these children to higher levels of care. Random clinic records were however examined to determine whether developmental screening was recorded at 6 weeks, 9 months and 18 months.

4.2. Awareness of the Developmental Screening Programme

The impressions of provincial and regional health managers interviewed for this study – that a general awareness exists across health facilities regarding the Developmental Screening Programme – were corroborated both by the rapid facility survey and the in-depth health facility visits. Findings from the telephonic survey revealed that 100% (n = 44) of health facilities were aware of the Developmental Screening Programme. Furthermore, all the facilities visited for in-depth assessments (n = 9), were aware of the programme, with the extent of awareness varying from facility to facility.

4.3. Extent of programme delivery

Provincial and regional managers expressed concerns that, although there seemed to be a general awareness of the Developmental Screening Programme, the extent to which developmental screening was delivered appeared to differ across facilities. These impressions were also confirmed by data gathered from the rapid facility survey and particularly from the in-depth facility visits.

The rapid facility survey revealed that the majority of facilities were delivering the 0 – 6 weeks, 9 months and 18 months screening tools. Of the sample of health facilities contacted telephonically, 95.5% (n = 42) reported that they were delivering the 0 – 6 week and 9 months screening tools, while 90% (n = 40) of facilities reported delivering the 18 months screening tool. Two of the facilities were not delivering the 0 – 6 weeks and 9 months screening tools, while two other facilities were not delivering the 18 months screening tool.

The in-depth assessment conducted at the nine selected health facilities revealed that seven facilities were implementing at least some part of the Developmental Screening Programme, while the two remaining facilities were not delivering developmental screening at all.

Specific areas of non-delivery

The regional managers highlighted a number of problem areas where they believed the programme was not being delivered. The rapid facility survey confirmed that the Central Karoo district of the Southern Cape/Karoo region and the Caledon/ Hermanus district of the Boland/Overberg had not implemented the programme. The Southern Cape/Karoo regional manager identified additional problem areas, including the George and Mossel Bay municipalities, but this information was not confirmed as they were not included in the rapid facility survey sample.

4.4. Who is delivering developmental screening?

The type or cadre of health worker, as well as the capacity and training of staff, in the Developmental Screening Programme was investigated.

4.4.1. Cadre of health workers conducting developmental screening

The rapid facility survey and in-depth facility visits revealed that developmental screening is primarily conducted by the professional nurse group. At one of the nine health facilities visited, a staff nurse was responsible for developmental screening, in collaboration with professional nurses who examined children who had failed the screen conducted by the staff nurse. At more than half of the facilities visited ($n = 5$), a nurse was assigned to preventive work, including immunisations and developmental screening. Children attending facilities for immunisations were thus seen almost exclusively by these professional nurses.

4.4.2. Capacity of staff and training in the Developmental Screening Programme

Staff capacity

Results from the rapid facility survey revealed that an average of 3.2 health workers were delivering developmental screening per health facility telephoned. Some facilities had only one health worker delivering developmental screening, while facilities with a larger infrastructure had up to six staff delivering developmental screening.

Findings from the in-depth facility visits differed slightly from the rapid facility survey, as fewer health workers were seen to be delivering developmental screening. An average of 1.8 health workers (professional nurses) were found to be delivering developmental screening per facility. In-depth facility assessments further revealed that the average total professional nurse complement per facility was 5.3. Hence, just over one third of professional nurses were engaging in developmental screening. (*See Table 5 on the next page*)

The number of professional nurses delivering developmental screening in relation to the total professional nurse complement was dependent on the way in which service delivery was structured in the facility, i.e. whether certain health workers were assigned to developmental screening (marked with “A” on *Table 5*), or whether all health workers carried out all PHC services.

Table 5: Professional nurse complement vs. number of professional nurses delivering developmental screening at health facilities visited

Facility	Total complement professional nurses	Professional nurses conducting developmental screening
Metropole		
M1	2	2
M2	5	1 (A)
M3	6	1 (A)
Southern Cape/ Karoo		
SCK1	5	2 (A)
SCK2	4	1 (A)
West Coast/Winelands		
WCWL1	3	1 SN (A)
WCWL2	6	4
Boland/Overberg		
BOVB1	14	2 (A)
BOVB2	3	3
Average	5.3	1.9 (36%)

Staff training

Both the rapid facility survey and the in-depth facility assessments investigated the training in the Developmental Screening Programme received by health workers. Data were collected to determine what proportion of staff delivering developmental screening had received formal training and which training bodies had trained these health workers. Information was also gathered from health managers and health workers regarding their perceptions of training received.

Number of staff trained

Both the rapid facility survey and the in-depth facility assessments revealed that not all staff delivering developmental screening received formal training in the programme. According to the rapid facility survey, of the 3.2 health workers delivering developmental on average in health facilities, an average of 2.6 health workers had received training (80%). In-depth facility assessments revealed that fewer health workers had received formal training – only 53% of staff (nine of 17 staff members).

Trainers

Data gathered from the rapid facility survey and in-depth facility assessment provided further information regarding the proportion of health workers trained by one of five training groups, i.e. the Provincial Training Task Team, the HRD sections of the regional departments of health, local or district authority training departments, facility in-service training and other bodies (e.g. training on related programmes).

Tables 6 and 7 (on the next page) indicate that the majority of health workers received training (especially initial training on the programme) from the Provincial Training Task Team. While 15 – 16% of facilities contacted telephonically for the rapid facility survey reported having received training from their regional HRD department, none of the facilities visited for in-depth assessments had received ongoing training from this body. The rapid facility survey did however reveal that the majority of HRD training had taken place in the Boland/Overberg Region. Training by local or district authorities and facility in-service training were seen to have taken place, especially as mechanisms for ongoing training in the absence of input from the Provincial Training Task Team.

Table 6: *Trainers reported by facilities telephoned and visited*

Source of information	% of health workers trained by each body				
	Provincial Training Task Team	HRD	Authority training department	Facility in-service training	Other
Rapid facility survey results of initial training (n = 44)	59%	15%	-	21%	6%
Rapid facility results of ongoing training (n = 44)	40.5%	16%	3%	40.5%	-
In-depth facility results (n = 9)	78%	-	11%	11%	-

Table 7: Overview of staff training at facilities visited

Facility	Number of nurses doing screening	No. formally trained	Trainer	Additional comments
Metropole				
M1	2	2	Provincial Training Task Team	Both professional nurses at M1 during pilot of programme. Staff nurse does immunisations only.
M2	1	1	Authority training department	Dedicated professional nurse for children (preventive and curative). Other four also trained by task team.
M3	1	0	-	Dedicated professional nurse for children but also has other functions, e.g. PMTCT. Not trained in developmental screening and does only immunisations. Two other PNs trained by task team (one left M3, one acting clinic manager)
Southern Cape/ Karoo				
SCK1	2	2	Provincial Training Task Team	One professional nurse screens on mobile, other at CHC. Professional nurse at CHC was member of Provincial Reference Group.
SCK2	1	0	-	Professional nurses rotate through preventive service delivery. Don't receive formal training.
West Coast/Winelands				
WCWL1	1 (staff nurse)	1 (staff nurse)	Facility in-service training	Staff nurse dedicated to children formally trained by senior in charge, who assists with cases who fail developmental screen.
WCWL2	4	1	Provincial Training Task Team	Only senior in charge; trained by task team. Other nurses not formally trained. No dedicated staff for children. Staff nurses involved in 9 and 18 months screening.
Boland/ Overberg				
BOVB1	2	1	Provincial Training Task Team	Used to have dedicated professional nurse for developmental screening. Now nurses rotate through preventive service delivery. No formal training received. One professional nurse trained by task team assists with screening but she is also leaving BOVB1.
BOVB2	3	1	Provincial Training Task Team	Only senior in charge; trained by task team. Other not formally trained. Only received training packages.

Perceptions of health managers and health workers regarding training

Interviews with the provincial and regional managers and focus groups with health workers highlighted the following key aspects of training on the developmental screening:

Initial training by the Provincial Training Task Team

“When they finished the training they saw what the programme was all about – that it wasn’t extra work; it was actually easier to use – much more friendly for them.”

“Dit was redelik goed aan ons verduidelik.”

The considerable input and training by the training task team was highly appreciated and valued by regional managers and health workers alike, especially as training is not a provincial function. Training by this body was very well received as highlighted by the comments above. Training by the Provincial Training Task Team was viewed as a major strength in the implementation of the Developmental Screening Programme and a factor which contributed significantly to whether the screening was delivered by health workers or not.

Training by the HRD departments

“Training was done in the beginning by the Provincial Task Team but unfortunately there has been no follow-up training.”

“Then you sit with one single HRD person...it is humanly impossible for her to be on top of the nine sub-directorates and about 20 programmes.”

The health workers voiced the need for ongoing training in developmental screening, however, as outlined above, the respective HRD teams were conducting little training. Many of the training manuals provided by the Provincial Training Task Team to the HRD teams had reportedly been mislaid. The Boland/Overberg region HRD team was reported to be the most active, as seen in the rapid facility survey. Provincial and regional managers commented on the difficulties within the HRD system, which was seen as largely under-resourced.

Training by local or district authorities

“Otherwise there is nothing done internally to upgrade. Although we have a teaching department we rarely have sort of like seminars so that at least we know we are current, or if there is anything else that is new it’s added on, or if we have questions that we can ask...at least we know we are abreast. So such things do not happen”.

As seen from the facility survey and assessment results, training by local or district authorities was fairly limited across the province. Comments from health care workers at health facilities highlighted this but there was a desire for ongoing training. Local authority training was very much dependent on the particular authority. In the Metropole region for example, some local authorities were identified as conducting training on developmental screening while others did not.

Facility in-service training

“Ons kry nou nie baie nie. Ons moet maar aangaan.”

“Ek het net ingeval, maar nou actually verwag hulle eintlik die suster gaan my leer, maar sy’t haar eie TB’s, so dis moeilik. Die mense wag vir haar, so dan gaan jy maar aan.”

Health workers also highlighted the lack of formal facility in-service training regarding developmental screening, having to work out how to do screening based on the screening tools alone. This was especially problematic for professional nurses who rotated on to immunisations and developmental screening, as seen from the comments above.

4.5. Delivery of developmental screening

4.5.1. Delivery in comparison with protocol

“I am just hoping that the tool is being used the way it should be, which I have my doubts about.” (Regional health manager)

As described above, the in-depth facility assessments revealed that seven of the facilities visited were delivering some aspect of developmental screening, while two facilities were found not to delivering developmental screening at all. Further investigation at the nine health facilities visited revealed that, of the seven facilities

delivering developmental screening, only one facility was delivering developmental screening according to protocol. Screening delivered in the remaining six facilities was found not to occur in accordance with standardised tools and guidelines. *Table 8* provides a breakdown of each of the nine health facilities visited.

Table 8: *Delivery and appropriate delivery of Developmental Screening*

Programme at health facilities visited

Facility	Pilot/Non-pilot site	Delivered?	Delivered according to protocol?
Metropole			
M1	Pilot	✓	✗
M2	Non-pilot	✓	✗
M3	Additional non-pilot	✗	✗
Southern Cape/ Karoo			
SCK1	Pilot	✓	✓
SCK2	Non-pilot	✓	✗
West Coast/ Winelands			
WCWL1	Non-pilot	✓	✗
WCWL2	Non-pilot	✗	✗
Boland/ Overberg			
BOVB1	Pilot	✓	✗
BOVB2	Non-pilot	✓	✗

Delivery of developmental screening at these six health facilities was seen to differ from protocol in one or more of the following ways:

- Not every child was screened at 6 weeks, 9 months and 18 months.
- The full screen was not always completed (i.e. items were omitted).
- Items on the screen were inappropriately administered, e.g. health workers altered wording when posing questions on tools to caregivers, inappropriate examples provided by health workers to clarify questions for caregivers, and/or results of screening inappropriately charted.

Use of old screening tools

The rapid facility survey and in-depth facility visits both showed that old screening tools were still being used. These old screening tools were either used where the Developmental Screening Programme had not been adopted at all, or in addition to the three newer screening tools. As older screening methods involved screening children at more frequent stages, old screening methods were used to screen children

at “in between” ages, i.e. at 6 months, 12 months, 3 years and especially 5 years. More detail is provided in *Table 9*.

Table 9: *Rapid facility survey results of old screening tools used*

Description	No. of facilities	Percentage
Old methods used only	1	2%
Old methods used at 6 months, 12 months, 3 years, 5 years, complementary to Developmental Screening Programme	2	5%
Old methods used at 18 months in stead of Developmental Screening Programme, 5 years complementary to Developmental Screening Programme	2	5%
Old methods used at 5 years; complementary to Developmental Screening Programme	10	23%

In-depth facility assessments revealed that health workers used old screening tools for the purpose of continuity. *“Kyk ons gaan mos deurlopend – dit is nie net die tool nie.” “I think that we lose the baby between 2 and 5 and I use the green card because I like them to come back.”*

4.5.2. Delivery in relation to other child health services

The delivery of developmental screening in relation to the provision of other health services differed across health facilities visited for in-depth assessment. Three of the nine facilities visited were found to offer PHC services to children and adults throughout the day with few staff being assigned to particular areas of service delivery. Certain services (especially antenatal care, TB- and HIV-related clinics) still took place on certain days and times, while comprehensive PHC was generally offered “around the clock”. Children were not fast-tracked but waited among the general patient population for their immunisations and screening.

In contrast to this, six of the facilities visited for in-depth assessment were found to have health workers assigned to particular aspects of service delivery – either the delivery of child health services (n = 1) or, more specifically, the delivery of preventive services, including immunisations and development screening to children (n = 5). At these facilities, well children coming for immunisations and screening were fast-tracked and did not have to wait amongst the general patient population to be seen by any one of the health workers. Delivery of (preventive) services for

children at some of these facilities occurred on a daily basis (n = 3), while at other facilities immunisations and developmental screening take place on certain days and/or at specific times (n = 3), e.g. on a Monday (full day) only, or Tuesdays and Wednesday mornings only.

At some facilities where health workers were assigned to particular services, some were permanently assigned to immunisations and developmental screening. At others, health workers rotated through the various services, spending periods (varying from a few months to two years) assigned to each service.

One facility visited had recently implemented a booking system with five children seen per hour for immunisations and developmental screening every day.

Comments from health workers and researchers' observations regarding assigning of staff, multi-tasking, staff rotations and booking systems

Focus groups with the health workers and observations by the researcher during facility visits revealed a number of *advantages of having staff assigned to specific functions*:

- **More organised and focused**

“Dis georganiseer, jy voel net meer georganiseer. Nou's jy besig met 'n siek mens, die volgende een kom in immunisering, die volgende een is 'n psigiatryse een... Ek meen jyself moet jou ook instel vir die dag.”

“Ja, emosioneel kan jy dit nie verwerk nie en dis meer intensief, ek meen as jy net mylpale die hele dag doen dan is jy ingestel en en dan gaan jy dit definitief doen.”

- **Better information provided**

“En daar word net baie beter voorligting gegee, want jou voorligting wat jy gee is min of meer almal dieselfd, e so jou kop werk net eenkant toe.”

- **Ownership/responsibility taken by health worker**

“Kyk, met die veranderings het hulle mos gesê alles moet mos poli-klinieke wees, maar van die begin af het ons gesê as jy nie een ou die verantwoordelike persoon maak van jou dit of dat nie, dan gaan niemand mos daarna kyk nie.”

- **Establishment and maintenance of patient rapport**

“When we are dealing with people, the people must learn to trust somebody – that’s one person. Now if there’s somebody else who is on that room that she was, you know. Now there is actually a problem.”

Health workers further highlighted the *disadvantages of multi-tasking*, i.e. being involved in the delivery of a variety of services rather than being assigned to specific services:

- **Inability to focus**

“Ja, it is because if you have to do four things at one time, your mind is not...you don’t concentrate on one thing.”

- **Quality of work not as good**

“So we don’t actually concentrate on one thing, so we may miss one or two things”

Where assigning of staff was seen to be extremely positive, the *rotation of staff through the different services was not observed to work very well*. Where rotation of staff was in place, not all staff felt motivated to carry out immunisations and developmental screening owing to lack of interest. When one health worker was asked if she enjoyed working with well babies, she responded *“Ek het nie ‘n keuse nie - ons moet draai...”* Developmental screening appeared to work best where health workers were permanently assigned to those and related duties, such as perinatal care.

Health workers from BOVB1 highlighted some of the *advantages of having a booking system*, which had recently been introduced at that facility. They indicated that it relieved the time pressures that they used to experience, allowing more quality time for patients. *“Nou met die nuwe sisteem gaan dit baie goed...Maar regtig met die afspraak het jy meer tyd.”* At M3, where a booking system was not in place, one of the health workers recommended, *“We should target on doing certain work for so many hours. I mean, if we have to be with the patient for 15 minutes, so if you are having 40 you must know when you are going to finish up.”*

4.5.3. Application of developmental screening

Setting required for developmental screening

During in-depth facility assessments, health workers were observed doing developmental screening in the clinic and, in one case, the mobile clinic setting. In all cases, screening took place in a separate room, however the extent to which privacy was ensured differed across facilities. In a number of facilities the door of the clinic room was left open during the developmental screening consultation. In one facility, two health workers consulted with two caregivers and their children in the same room. In some facilities, health workers experienced difficulties ensuring privacy due to interruptions by other health workers and/or patients. At one such facility, the health worker noted, *“And then the lack of privacy during that. You doing somebody and then there’s someone coming, I need this, can you help me and they all expect you to help them.”*

The extent to which consultation rooms were child-friendly also differed dramatically between facilities. Some health facilities had dedicated “baby rooms” with brightly coloured walls bearing appropriate health education materials (including developmental milestones and head circumference charts). Other facilities did not offer private and/or welcoming child- and family-centred treatment environments.

Equipment requirements

The Developmental Screening Programme Guidelines stipulate that health workers have the following equipment available to administer the screen:

1. Weighing scale and tape measure
2. Road-to-Health Card
3. Clinic records
4. Growth charts (weight and head circumference)
5. Otoscope (9 months and 18 months screen only)
6. Bean-sized object e.g. a crumpled piece of paper (18 months screen only)

In all facilities, the child’s Road-to-Health Card and clinic records, as well as growth charts were readily available in developmental screening consultations. In all facilities but one, children were weighed by assistant nurses or nutrition counsellors prior to their screening consultation. As a result, none of the consultation rooms where

developmental screening took place had weighing scales. Head circumference measurements were however taken by health workers (a number of professional nurses also measured the child's length/height although this is not obligatory) and thus a measuring tape was available in each consultation room. An otoscope was never required by health workers during site visits (otoscope is only used to rule out outer or middle ear pathology where children fail the language or hearing questions on screening tools), therefore it was not established whether these were available. Only one health worker made use of a bean-sized piece of crumpled paper to test the pincer grip on the 18 months screening tool.

Although the standardised guidelines for the Developmental Screening Programme do not stipulate that the health worker needs to have the relevant developmental screening tool available, a number of the health workers had the appropriate form on hand. *“Nee, met die ondersoek – ek hou die ding hier teen my muur en dan sal ek nou vra wat ek sal onthou en dan sal ek nou kyk of ek nou alles gevra het, of alles gedoen het.”*

Other health workers indicated that they knew the tool “by heart” and did not make use of the actual tool. *“With the screening we know what to look for and don't use the tool physically. “I do know my tool. I ask questions and I observe.”*

Procedure (prior to examination)

Procedures prior to examination, as outlined in the Developmental Screening Programme Guidelines, require that health workers ensure that the caregiver is comfortably seated, explain the procedure to the caregiver, ask whether the caregiver has any concerns regarding the child, examine the Road-to-Health Card and wash his/her hands. It was found that at the majority of health facilities, health workers did not follow these procedures. Caregivers on the whole were seated comfortably and Road-to-Health Cards examined (although not always in detail) but health workers rarely explained fully the procedure to the caregiver and mostly explained only that the child would be immunised. Caregivers were mostly not given the opportunity to voice concerns regarding their child. Only one health worker washed her hands prior to conducting each screen.

Use of tools

Administration time

Consultations observed varied from five to 20, with developmental screens taking on average ten minutes to complete. Screens completed in less than ten minutes were not conducted thoroughly. Consultations always incorporated additional management of the child and caregiver, including information about growth, breastfeeding and nutrition, family planning, management of minor ailments/conditions such as skin problems and nappy rash, deworming, colds and flu, as well as discussions about immunisations and management of possible side effects. Maintenance of the umbilicus and teething were less common discussion points. Only one health worker provided caregivers with guidelines for stimulation and also addressed pre-school/crèche placement with the caregivers.

Application of the screening tools

The thoroughness (extent to which all items/full tool was completed) and appropriateness (extent to which questions, examinations and observations were carried out stipulated by guidelines and as such reflected the correct meaning of each item) varied considerably across health facilities. Only one facility (SCK1) completed a full tool for each child according to the screening guidelines, using appropriate questions and examples for clarifications of items misunderstood by the caregiver.

The majority of other health facilities did not complete the full developmental screening tool and/or did not administer all items in accordance with the guidelines. Questions to caregivers were often worded differently, thereby changing the meaning of the question, e.g. *“If you say ‘come to me’, does your child come?”* instead of *“Does your child respond to simple commands or questions?”* Observations were frequently inappropriate, e.g. tape measure used instead of bean-sized object to test pincer grip. Questions used for clarification were sometimes inappropriate, e.g. *“Does your child watch a moving object? Does he watch a car out the window?”* No set patterns in the items omitted or changed by health workers were noted. The health workers generally always carried out physical examinations.

Table 10 on the next page provides a further breakdown of the facilities that appeared to be administering developmental screening in a thorough and appropriate manner.

At some facilities, the appropriateness of screening was dependent on the health worker administering the screen and ✓/✗ has been used to indicate that sometimes tools are appropriately completed and other times not.

Table 10: Manner in which screening was administered at visited health facilities

Facility	Thorough administration (Each tool completed fully)	Appropriate administration (Tool administered according to guidelines)
Metropole		
M1	✗	✗
M2	✓	✗
M3	✗	✗
Southern Cape/Karoo		
SCK1	✓	✓
SCK2	✓	✗
West Coast/Winelands		
WCWL1	✓	✗
WCWL2	✗	✗
Boland/Overberg		
BOVB1	✓	✓/✗
BOVB2	✗	✓/✗

The lack of thorough and/or appropriate administration of the developmental screening tools was not related to difficulties experienced by the health workers in delivering the tools. The only concerns voiced by health workers regarding the developmental screening tools were the following:

- **Hearing screening**

One health worker felt that a history of deafness or whether the child startles to sound does not tell whether the child can hear or not.

- **Some difficulty with hip rotation**

“Daai rotering om regtig te voel of hy gedislocate is of – nie daai's nou bietjie van 'n probleem. Dis tricky. Is niks om hom te houvas nie, maar daai movement om regtig te besef hy's gedislocate.”

- **Language barrier**

“'n Mens kan nie altyd so lekker die vrae vra nie.”

- **Respondent is not always the caregiver.** “

“Ons mense kom in. As hulle nie weet wat daar aangaan nie, dan sê ons vir hulle volgende keer stuur julle een wat weet wat daar aangaan.”

Feedback to caregivers

Feedback to caregivers following developmental screening was usually restricted to the health workers informing caregivers that their child was growing well, although some health workers did mention development. No other information was provided to caregivers on the whole regarding child development and stimulation (except for facility SCK1). In one case a child with Fetal Alcohol Syndrome was not discussed with the caregiver or managed further.

Recording of results

In accordance with Developmental Screening Programme Guidelines, health workers were required to record screening results in the child's clinic records and Road-to-Health Card. Health workers were only required to use the developmental screening form itself as a referral form when the child failed the screen.

During the course of in-depth facility assessments, health workers were observed to record developmental screening results in the child's clinic records. On reviewing a number of patient folders however, screening results were not always recorded. Patient folders were also seen to differ across regions and facilities. One of the Metropole region facility records was found to include old screening tools for 9 months and 18 months.

Results of developmental screening were found to be recorded less frequently on the child's Road-to-Health Card, although health workers did allude to the importance of charting results to show caregivers their child's growth and development. At one facility (M2), a developmental screening form was completed for each child screened (sheet filed in the child's paediatric clinic records) and a second facility (BOVB1) completed a developmental screening form, which formed part of each child's paediatric clinic records.

Findings of the in-depth facility assessments agreed with findings from the rapid facility survey, which also indicated that developmental screening results are mostly recorded in clinic folders but not always on the Road-to-Health Card, especially when the child passes the developmental screen. Further detail is provided in *Table 11* on the next page.

Table 11: *Telephonic survey results of recording of developmental screening*

Pass	Road-to-Health Card	Folder
Yes	61%	93%
No	39%	7%
Fail	Road-to-Health Card	Folder
Yes	80%	98%
No	20%	2%

Health workers' perceptions of screening tools

Health workers were very positive about the tools and their administration, commenting on the following:

- **Layout**

“Die tool is wat my betref ‘n baie oulike ding. Dis mooi uiteengeset met al jou mylpale.”

- **Tools are quick and save time**

“So met die nuwigheid het darem so bietjie van vermindering van werk gekom.”

“Dis nie so baie tydrowend nie – regtig waar nie.”

- **Tools are practical and easy to use**

“Maar dis ook baie prakties – die tool jy weet – dis nie langdradige, uitgerekte klomp vrae nie. Dis maklike, vinnige vrae. Soos die 9 maande is baie gouer, die 18 maande gaan gouer, want terwyl die kind besig is neem jy waar al wat die kind doen – so speel-speel.”

- **Content: comprehensive, addresses all milestones, questions good**

“Ek dink die vrae wat jy hier vra is genoeg; dis nie moeilik nie.”

“Nee wat, ek dink daai is voldoende op die oomblik – dis maklik.”

“En hy dek alles, want hy't gehoor en spraak en al die bewegings.”

- **Involvement of caregivers is perceived positively – yields more information, experience for caregiver positive and encourages their insight into child development**

“It is very good, because you pick up a lot of other things, like the mother says this and that about the baby. And with those others you don't ask the mother, you just do and you can leave out stuff.”

“En vir die ma is dit ook baie gerusstellend, want sy sien jy stel belang. Jy kyk darem. Dit gee darem vir hulle die vrymoedigheid, dan voel hulle volgende keer vryliker om te kom na die kliniek.”

“En die ma's ook, ek dink dis vir hulle ook lekker as jy beginne praat oor hulle kind, want hulle wil ook praat oor wat hulle kind doen, dis mos vir hulle oulik en jy bevorder ook die ma se insig in die kind se ontwikkeling. Sy weet dit en dat moet hy nou al doen en sy brei hom uit en sy doen moeite en hulle koop nou al kryte en blokkies en goeters vir die kinders.”

- **Easy to identify developmental delay/disability using the tools**

“Jy kan maklik agterkom wanneer is jou kind agter as jy volgens jou tool gaan.”

4.6. Referrals, feedback and follow-up

4.6.1. Referral points

Results from the rapid facility survey and in-depth facility assessments indicated that health workers made use of regional paediatricians, occupational therapists and other medical staff and institutions for referral of the child with suspected developmental delay. Of health facilities contacted telephonically, 30% (n = 13) reported referring to paediatricians, while 40% (n = 18) indicated that they make use of occupational therapists.

During in-depth health facility visits it was observed that occupational therapists were predominantly used where they visited the facility on a monthly basis. Regional paediatricians were not used as referral points at many facilities due to the inaccessibility of regional hospitals where these services are based.

Most facilities were found via the rapid facility survey to make use of other referral points, including the medical officer at their local day hospital, the district surgeon at the district hospital and the genetic screening programme. Numerous facilities (20% of facilities contacted telephonically, n = 9) still referred directly to Red Cross Hospital – either to outpatients or directly to the Developmental Clinic. Again referral points used relate directly to accessibility of services as well as transportation routes. A breakdown of referral points used by health facilities where in-depth assessments were conducted is outlined in *Table 12* on the next page.

Table 12: Referral points of facilities visited

Facility	Referral points
Metropole	
M1	Regional paediatrician Genetic screening programme
M2	Red Cross Hospital Paediatric outreach service, district hospital Occupational therapist, nearby health facility
M3	Red Cross Hospital
Southern Cape/Karoo	
SCK1	Occupational therapist, visiting once per month District surgeon
SCK2	Occupational therapist, visiting once per month Sessional medical officer, visiting daily ⇔ Regional paediatrician
West Coast/Winelands	
WCWL1	District surgeon ⇔ Red Cross/Tygerberg Hospital Occupational therapist, local special school Genetic screening programme
WCWL2	District surgeon ⇔ Tygerberg Hospital
Boland/Overberg	
BOVB1	Occupational therapist, visiting once per month District surgeon
BOVB2	Occupational therapist, visiting 1 – 2 per month Regional paediatrician

Interviews with health managers and focus groups with nurses confirmed these findings. In the **Metropole Region**, regional managers and health workers reported that referrals were made predominantly directly to the tertiary hospitals, Red Cross Hospital or Tygerberg Hospital. The secondary level was generally missed out. *“If there is a developmental delay of any sort on any of the tools, they are either told to come back at a later stage or they are referred inappropriately directly to a tertiary hospital without having been through any other channel.”*

The health manager for the **Boland/Overberg** indicated that, even in the rural regions, there is a tendency to refer directly to the tertiary hospitals. *“There is a tendency to refer directly to Rooikruis (Red Cross), Tygerberg, Groote Schuur, and just miss our secondary hospital. Unfortunately, there is a history of referring to tertiary level directly. The other thing is we have services at our secondary hospital but they are so fully booked.”* In this region, direct referrals to tertiary level occurred mainly from the Overberg where Red Cross and Tygerberg Hospitals are more accessible than the region’s secondary hospital in Worcester. *“Especially again one of*

our regions is referring directly to the Metropole, to our tertiary institutions, because that is just the way that the ambulances drive. You'll find most of the times that there are more regular ambulances to the tertiary regions outside our region than inside our region." Health facilities in the Boland were reported to still make use of regional paediatric services at secondary level.

Like the Boland/Overberg, the **Southern Cape/Karoo** health facilities made considerable use of occupational therapists in the region to refer children with suspected developmental delay/disability. The implementation of the Developmental Screening Programme in the Southern Cape/Karoo was driven by the occupational therapists in the region and specific referral routes, including occupational therapists as initial referral points, were reportedly developed for this region. These therapists therefore continued to receive most of the referrals, together with the regional paediatrician. *"In actual fact what is happening is that even if the child goes through the paediatrician, she will then also refer to the occupational therapist."*

Although the rehabilitation service in the **West Coast/Winelands** was reported to have developed considerably over the past few years, referrals to district surgeons at district hospitals have continued. Decisions on whether to refer on to the tertiary level were thus made by these medical professionals. Health workers did not seem to be aware of, and/or make use of occupational therapy services at or near their facilities.

4.6.2. Referral and waiting times

All facilities contacted telephonically for the rapid survey indicated that children identified with possible developmental delay were referred immediately after failing the screener. Interviews with health managers and facility visits, including focus group with health workers, did however indicate that children were sometimes brought back to the facility a second time to confirm the developmental delay before referring.

Health workers were especially reluctant to refer immediately where services such as the services of a visiting occupational therapist were not readily available and transportation costs for the patient to the referral point were high. *"Yes, people are afraid to refer. Let her come back and I'll see if there's still a problem."* This reluctance to refer was attributed by one of the regional health managers as a lack of

empowerment and confidence by nurses to make “diagnoses” and refer on. *“Nurses aren’t very confident in their diagnoses or in their ability to recognise... I think it’s the way we were trained. Never allowed to make independent decisions.”*

The rapid facility survey further revealed that patients waited between one and eight weeks for an appointment at the designated referral point, with the majority of patients having to wait one week only. The mean waiting time for appointments was calculated as 2.09 weeks; that is patients wait an average of 2 weeks for an appointment.

4.6.3. Referral forms

Developmental screening guidelines stipulate that children who fail developmental screening should be referred on the screening form. It was however found via the rapid facility survey that 66% (n = 29) of facilities did not make use of this form but rather use their health facility letterhead and/or memorandum to refer. Other standard internal referral forms or letters, e.g. Red Cross Hospital referral form, were also reportedly used. This was confirmed by regional managers who indicated that occupational therapists and regional paediatricians receive few referrals on standardised referral forms. *“We get few referrals on the standard referral form. Most people are still referring on little memos that accompany the patient for things that should have been done on the tool.”*

4.6.4. Record of referrals

Only one facility of the nine visited for in-depth assessment kept an additional register of children who failed the developmental screen (WCWL1). Through this list of folder numbers, the facility was able to recall folders and follow-up with referral points regarding whether children arrived and were managed at these institutions. No other facilities kept such a register.

4.6.5. Feedback to health workers from higher levels of care

There was little consensus amongst the regional managers as to whether health workers receive feedback on cases referred after developmental screening.

Impressions varied from *“There is definitely almost zero feedback from upper level*

downwards” to “*There are I’m sure gaps where people are not properly informed*” to “*Ja. It depends on staff though but usually there is*”.

The in-depth facility survey revealed that feedback is almost always received from paediatricians and occupational therapists. The feedback from other referral points varied more. One third of facilities reported receiving feedback either sometimes or never from these other referral points.

4.6.6. Follow-up

Considering that only one facility visited for an in-depth assessment had a record of children referred following developmental screening, health workers were seen to rely on caregivers returning with their children to the facility with feedback. Follow-up was however also reported to occur in smaller, rural communities where health workers “*know the patients and sees the patients and if patients get lost somewhere along the line, even if she doesn’t have the time to physically follow-up, she will follow-up the patient at the clinic.*”

4.7. Children identified

Focus groups with the health workers at health facilities revealed that only a few children have been identified with a developmental delay or disability. “*Dit gebeur maar weinig, baie weinig.*” Health workers were however not able to provide figures on the number of children identified, i.e. the incidence of developmental disability. Many of the problems which have been identified have been visible: physical abnormalities, including undescended testicles, clubfoot, hydrocephalus, syndromes such as Down’s Syndrome, Fetal Alcohol Syndrome and other genetic disorders.

Where developmental screening was implemented more readily and according to protocol, other more subtle problems, including cleft palates and hearing problems, had been picked up. A number of children did not have a developmental assessment (and, as a result, a more definitive diagnosis), as they did not attend their referral appointments. “*Baie van ons kinders het nooit gegaan as ons hulle verwys het nie, met ander woorde, hulle's nooit gediagnoseer as iets nie, maar hulle's definitief agter.*”

4.8. Intervention for identified children

An important aspect of this evaluation was to determine the extent to which children identified with developmental delay actually receive further assessment and management, i.e. to what extent there was response to the implemented programme.

A high proportion of facilities contacted telephonically for the rapid facility survey (95%) reported that children always received intervention. This is likely to be skewed as there is, as shown in this study, no formal mechanism for following up on children who have been referred.

Provincial and regional managers acknowledged that there remains a shortage of resources for developmentally delayed/disabled children to receive intervention across the province. *“I think we’ve got a shortage of resources for children, especially in the rural areas. That is a real problem.”* Available resources, including occupational therapy services in some areas, were reported to be underused. *“Also, we do have mechanisms in place that our health care workers are not necessarily making use of”*. Transport was also reported as a constraint to intervention, especially in the vast Southern Cape/Karoo and West Coast/Winelands Regions.

Focus groups with health workers also highlighted the need for intervention to be easily accessible to patients. *“If they had nice things in place here you know, locally and so on, then it would be better, you could tell the mother the lady is coming on a Wednesday or she’s coming here, then you don’t need to go there. But to leave from here and go there she needs money, then we have to get the money”*. The need for intervention to be provided on a regular basis was also mentioned by health workers. *“In die verlede toe sy nog gereeld gekom het, het dit goed gegaan.”*

Health workers also discussed how intervention should to be accessible to caregivers to overcome financial and broader socio-economic constraints. *“I understand when she says ‘Oh I can’t, I’ve got four other children, how can I spend all this time running to Red Cross?’”* and *“We have this whole range of behavioural problems and delayed development due to various factors, malnutrition, the works, with the poor social circumstances and then you refer this child, this child needs money to get to these places, dedication by the parents...these things are just not in place”*.

Health workers also identified caregivers' insight and cultural views of disability as factors that sometimes prevented caregivers taking their children for further assessment and intervention. *“Also what you see as a problem, the mother doesn't necessarily see as a problem... And also like squints, you have to go to the ends to convince this women this needs to be addressed and or hear “No my father and my grandfather, it's in the family...it's fine’.”*

“Ek het dan 'n dowe kind - 'n doof, doof, dowe kind van geboorte af opgetel en die ma stel glad nie belang om enige iets te doen om daai kind in 'n plek te kry waar hy hulp kan kry nie. Hy moet nou al skool toe gaan en hulle stel geensins belang nie, nee eens dat hy Worcester toe gaan nie. Alles gereël maar niks. Jy sien hulle dink dis ok; hy verstaan alles.”

As there is no formal mechanism for following up on children who have failed developmental screening, it was difficult to determine to what extent children were arriving at referral points and receiving intervention. Considering all these factors, it is likely that approximately 50 – 60% of children received the intervention they require.

4.9. Monitoring and evaluation of programme

To date, other than the evaluation conducted during the pilot phase of the implementation of the Developmental Screening Programme, no formal monitoring and evaluation had taken place. Regional managers have acknowledged that their functions include monitoring and evaluation, however other than a few informal site visits and discussions with health workers, no formal monitoring of the programme had taken place. Regional managers also mentioned that they relied on the receipt of standard developmental screening referral forms by referral points to monitor implementation but this has also yielded little valuable information, as many referrals were not occurring on this standardised form.

A criticism of the conceptualisation of the Developmental Screening Programme has been that monitoring and evaluation was not built into the programme. One of the regional managers reported that, as there were no clear objectives, indicators or targets set for the programme, monitoring was not possible. *“As a programme*

manager one has to back up answers to questions like that (coverage of a programme) with stats. My simple answer to that is that the monitoring and evaluation of the programme should have been conceptualised from the beginning and be part of the operational objectives of the programme. We haven't got a target. We haven't got a system of going back to check that. That is a gap in the programme."

The only current mechanism for monitoring the delivery of the developmental screening is the Routine Monthly Report data on developmental screening, whereby facilities are required to keep a count of the following:

1. Babies examined first time before 6 weeks
2. Development assessments under 2 years
3. Referrals after developmental assessment under 2 years

Health managers in this study pointed out that the health information system in general has numerous problems. The Health Information Directorate at a provincial level was reported as having little follow-up with the regions and there exist significant gaps in statistics gathered at a district level exist. The current Routine Monthly Report data on the Developmental Screening Programme similarly does not provide valuable or meaningful information regarding the number of children screened or identified with developmental disability by the programme.

5. DISCUSSION

A number of main themes related to both programme-specific and the general provincial health system levels emerged from this study. These discussion areas are thus not only relevant to the Developmental Screening Programme but are integral to the provision of PHC services in general in the Western Cape Province. Main themes included:

1. The value of developmental screening and the Developmental Screening Programme
2. The successful development of the programme
3. Challenges in the delivery of the programme
4. Issues specific to the programme
5. The impact of the health system on programme delivery
 - Transformation/restructuring of the health services
 - Organisation of service delivery at health care facilities
 - Staff and staff capacity
 - Training
 - Referral system
 - Intervention/response to developmental screening
 - Monitoring and the role of health information

5.1. The value of developmental screening and the Developmental Screening Programme

Developmental screening receives little priority within the field of child health services at a national, provincial and regional level and, notably, has only been addressed within the Western Cape Province of South Africa. Similarly, at a local level, the implementation of curative services for children at PHC facilities takes precedent over preventive and promotive services, including developmental screening. Despite this, the introduction of the Developmental Screening Programme in the Western Cape has been met very positively.

Health workers throughout the province who participated in this study unanimously voiced the need to conduct developmental screening, citing early detection as a strong rationale for this activity. Health workers expressed their gratitude for the

development of standardised screening methods and lauded the Developmental Screening Programme and its component tools and guidelines for their simplicity, ease of use, time-effectiveness and comprehensive content. Despite various constraints in delivering developmental screening, health workers insisted that screening must continue. *“It is necessary because you may not know. It can be one in 100 but it will be good to pick up that one. You are helping that person to be able to be an abled person.”*

5.2. The successful development of the programme

The multidisciplinary and inclusive nature of the Provincial Reference Group (specifically the high level of input from health workers “on the ground”, as well as professionals from academic institutions) was highlighted as having facilitated the rapid and smooth implementation of the Developmental Screening Programme. The dedication and commitment of the Chairperson of the Provincial Reference Group, as well as the core training task group, was also acknowledged.

5.3. Challenges in the delivery of the programme

Despite the need for developmental screening and the overall awareness of the Developmental Screening Programme in the Western Cape, the delivery of developmental screening was occurring to a limited extent across the province. No distinct differences were seen between the delivery of the programme at pilot vs. non-pilot sites, CHCs vs. PHC clinics, or between regions. Specific problem areas where delivery was not occurring at all were identified through the study, and it is likely that many other such sites exist in the province.

5.4. Issues specific to the programme

While it is clear that the success of the Developmental Screening Programme has been confounded by numerous broad health systems factors, a few notable programme-specific challenges should also be mentioned. These challenges should not be considered in isolation but in the context of the greater systemic challenges described below.

- **Training:** Although the contribution of the Provincial Training Task Team in the initial training on the Developmental Screening Programme was significant and

very well received, major gaps were found in current training. HRD teams in each of the regions provided little or no continued training and support and inadequate training by other district or local authorities or in-service training bodies was occurring. The lack of delivery was seen to be directly related to the lack of training.

- **Recording of screening results:** In some facilities, old screening tools still formed part of paediatric clinic folders. This was believed to negatively affect the delivery of the “new” programme and tools. Where “new” screening tools formed part of patient folders, screening was more likely to occur.
- **Referrals:** Referrals of children identified through the developmental screening were not always according to protocol. Children were often referred directly to the tertiary level, bypassing the secondary level. This was confounded by the fact that some secondary level facilities did not provide services for children with developmental disability. Health workers showed some lack of confidence in referring children with developmental disability and often referred initially to medical doctors (medical officers or district surgeons) for confirmation of the “diagnosis”. Rehabilitation services remain underused. Most notably, standard developmental screening referral forms were not being used.
- **Intervention:** The availability of intervention was seen to be directly related to the delivery of developmental screening in that health workers were more motivated to screen children where they were certain intervention for the child would be received. The lack of uptake and regular attendance for intervention was also a key issue that emerged from this study. Even where interventions were provided locally and/or assistance was provided to children to enable them to access services, defaulting for developmental assessments and interventions still occurred. There is thus a clear need for health education around child development and disability in the community to highlight the importance of the early years for development and to dispel myths regarding development and disability.
- **Monitoring and evaluation:** Lack of monitoring and evaluation may be rooted in the lack of clear objective and target settings during the initial conceptualisation of the programme. The responsibilities of each level of care in monitoring the programme were also not clearly stated. The only formal mechanism for monitoring the implementation of the Developmental Screening Programme has

been the health information data on developmental screening captured via Routine Monthly Reports. However, this data is so inaccurate that it lacks both meaning and value and has not assisted in clarifying the extent to which developmental screening is occurring and/or the number of children who have been identified by developmental screening with developmental disability. The collection and analysis of this data is confounded by the lack of targets, as well as general problems within the Health Information Directorate of the Department of Health.

5.5. The health system and its impact on programme delivery

A glaring finding of this research is that the majority of constraints identified in the delivery of the Developmental Screening Programme were systemic (relating to the health system) rather than programme-specific in nature. Simply put, implementation did not occur not because of problems with the programme itself but because of multiple challenges and barriers within broader health care provision.

It should be noted that these findings are not unique to this particular evaluation. Recent studies evaluating other maternal and child health programmes within the Western Cape have reached similar conclusions, including the down-scaling of the Red Cross Hospital Medical Outpatient Department (Shung King, 1998), the primary level after-hours services in the Metropole Region (Mathambo and Shung King, 1999), the interim study on the national PMTCT pilot sites (McCoy, Besser, Visser and Doherty, February 2002), the rapid appraisal of primary level health care services for HIV-positive children (Giese and Hussey, March 2002) and the evaluation of the policy and guidelines for the management of survivors of rape and sexual assault (Ogilvy & Associates, March 2003). Systemic factors including the transformation/restructuring of the health services, staff and capacity issues, training, referral systems and challenges with monitoring and health information systems have all been cited as constraints in the delivery of these programmes.

5.5.1. Transformation/restructuring of the health services

Like many other maternal and child health programmes introduced in the past five years, the context in which the Developmental Screening Programme was developed and implemented has been characterised by much restructuring and change within the health system. The introduction of the new district health system, including the

decentralisation of services and rationalisation (and in some instances amalgamation) of facilities has caused much uncertainty for health workers. Furthermore, free health care, and more recently the provision of a comprehensive, integrated “one stop service” has increased health workers’ workloads, while staffing levels have fallen. The “possibility of smooth implementation (of the Developmental Screening Programme, like the downscaling of the outpatient services at Red Cross Children’s Hospital) has thus been marred by numerous other restructuring processes in the Western Cape, which negatively impacted on the workload, staffing levels and available resources”. (Shung King, 1998)

The quality of comprehensive PHC provided has clearly deteriorated, with the delivery of curative services taking priority over other services. Owing to time constraints, preventive services, including immunisations and developmental screening, do not receive adequate attention. This was evident both in the fall in immunisation coverage in the province as well as the limited delivery of the Developmental Screening Programme.

5.5.2. Organisation of services at health facilities

In addition to the impact of the broader health system changes on the implementation and delivery of the Developmental Screening Programme, health facility-related factors have played a role in limiting the efficient delivery of services, including developmental screening, at a PHC level.

Although the provision of dedicated services at dedicated times by dedicated staff is contrary to the “one stop shop” philosophy of the Department of Health, these factors contributed positively to the delivery of (quality) services including developmental screening. Similar to the study conducted by Ogilvy & Associates (2003), this study showed that developmental screening was observed to run smoothly and in an organised fashion where dedicated health workers carried out immunisations and developmental screening services at set times rather than seeing well children while simultaneously providing a range of other services. Children were more likely to be seen quicker and receive better attention from a focused health worker. It was clear from this evaluation that health workers were struggling to be “Jacks of all trades”.

In agreement with the Health Systems Trust study (McCoy et al., February 2002) of the PMTCT pilot sites, this study found that a strong sub-district and facility management infrastructure and a strong physical infrastructure (including a child-friendly environment) had a positive effect on service delivery.

5.5.3. Staff and staff capacity

As highlighted by all of the previous evaluations of child health programmes, human resource constraints were identified as inhibiting the delivery of the Developmental Screening Programme. Low staff levels and consequent work pressures impacted negatively on the quality of service delivery and staff morale. Health workers were highly dissatisfied with the quality of care they were able to provide and indicated that they just did not have the capacity and time to carry out preventive and promotive aspects of health care as in the past. *“I mean there is no way we can claim to have such a wonderful health service, because we don’t.”*

5.5.4. Training

Like many other child health programmes, the need for training and ongoing support of health workers to sustain the positive impact of training is great (McCoy et al., 2002). Continued capacity development and support is especially pertinent in view of the rapid staff turnover in many health facilities, as well as the rotation of staff through the PHC services within many health facilities. It is thus a great concern that a large proportion of health care workers in the province do not have access to ongoing training and support on programmes such as the Developmental Screening Programme. This is primarily attributed to gaps and inequities within the HRD sections of regional Departments of Health and limited training provision by other district and local authorities, as highlighted in other programme evaluations, such as the study by Ogilvy & Associates (2003).

5.5.5. Referral system

Similar to the findings of the two evaluations conducted by the Child Health Policy Institute in 1998 (Shung King) and 1999 (Mathambo and Shung King), this study noted major problems with the referral system, including the lack of standardised referral protocols and feedback between levels of care. Referrals of children identified

with developmental disability were further confounded by the lack of resources for further assessment and intervention, together with transportation problems.

5.5.6. Intervention

One of the general principles for screening outlined by the WHO and one of the core principles of screening for developmental disability as set out by the National Workshop for Developmental Screening Workgroup (1996) is that screening should only be conducted if linked to appropriate interventions. This evaluation revealed that although developmental and rehabilitation services were more readily available than in the past, in many cases these necessary interventions for children detected with developmental disability were still not always available or accessible. The government is committed to realising the rights of the disabled child and the delivery of rehabilitation services through the Integrated National Disability Strategy (1997) and the National Rehabilitation Policy (2000). The elements of the comprehensive PHC service package required for the delivery of a rehabilitative service to children with disability are still largely not in place (Department of Health, 2001).

5.5.7. Monitoring and the role of health information

“Systems need to be in place to monitor, on an ongoing basis, the implementation of (health) interventions.” (Giese and Hussey, March 2002) This recommendation in the rapid appraisal of PHC services for HIV-positive children is one that should be applied to all (child) health programmes but remain largely neglected. The lack of monitoring, and structures for monitoring, of the Developmental Screening Programme emerged clearly from this evaluation. Health managers thus do not have a comprehensive picture of developmental screening across the province within the various health regions and districts. Furthermore, as Routine Monthly Report data are largely meaningless and as targets have not been set, there is little accountability on the part of health workers in the delivery of the programme.

6. RECOMMENDATIONS

Based on the findings of this evaluation study, a number of recommendations are made for the Developmental Screening Programme specifically and the provincial health system as a whole. The Developmental Screening Programme-specific changes are inextricably linked to changes within the broader health system and will have little or no effect on the delivery of the Developmental Screening Programme without improvements to the broader health system. It is thus recommended that the 2 – 5 year developmental screening tool should not be developed until major health system reforms have taken place.

6.1. Developmental Screening Programme-specific recommendations

- **Delivery of Developmental Screening Programme:** Eliminate districts not delivering programme and ensure screening delivered according to protocol. Specific areas to improve include charting of screening results and use of standard referral form.
- Provide **health education** to improve public awareness regarding early identification, intervention, disability and the Developmental Screening Programme.
- Clarify **training** mechanisms, i.e. who should provide ongoing training and support on Developmental Screening Programme and in which way.
- Refine Developmental Screening Programme **referral pathways** per region and district; provide each facility with set referral guidelines.
- **Monitoring:** Review objectives and set targets for Developmental Screening Programme, redefine programme line items on Routine Monthly Report.
- **Evaluation:** Re-evaluate Developmental Screening Programme within 3 - 5 years once recommendations addressed. Investigate scientific validity and reliability of screening tools. Conduct in-depth study of referral, follow-up and long-term outcomes of children identified with developmental disability.

6.2. Provincial health system recommendations

While the Provincial Reference Group should be able to address the various Developmental Screening Programme-specific recommendations, it is suggested that all relevant role players from the Provincial Department of Health come together to

address the broader health systems recommendations as a matter of urgency. These include addressing gaps in the delivery of the comprehensive primary health care package (weaknesses in preventive, promotive and rehabilitation services), as well as organisational support systems (staff, training, referrals, monitoring and evaluation). Such a workshop should include top management; programmes, Human Resource Development and Health Information Directorates as well as key regional and district health managers and could use the Developmental Screening Programme as a proxy to address challenges and changes within PHC service provision. Finally, it is recommended that all child health programmes be routinely evaluated.

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